

MONTHLY LABOR REVIEW

OF U. S. BUREAU OF LABOR STATISTICS

VOL. 25, NO. 1

WASHINGTON

JULY, 1927

Immigration Restriction and the "Scarcity" of Domestic Servants

SEVERAL statements have been made recently complaining of the scarcity of domestic servants and attributing this scarcity to the restrictive immigration laws of 1921 and 1924. Conclusive evidence on this subject is not available, but the information accessible indicates that the difficulty complained of is due to persistent economic and social causes having little or no relation to immigration or to immigration policies.

There are two senses in which the term "shortage of domestic servants" may be employed. In the first place, it may mean merely that the demand for such labor is in excess of the supply. In the second place, it may mean that there is a scarcity of efficient domestic servants at wage rates and under employment conditions which the average householder regards as reasonable.

As regards the first point—the available supply of domestic labor of all classes—there does not seem to be any widespread or general shortage. Recent reports from public employment offices, for example, show rather wide variations between communities and at different dates. Some report an excess in the demand for domestic servants, some an excess in the supply, and many report an excess in demand or supply according to the season of the year. In general, however, the reported shortages are neither large nor continuous.

Thus, in January, 1926, the New York State employment offices reported 99.1 applicants for domestic and personal service to each 100 requests for such workers, representing a slight shortage in the supply. In January, 1927, however, the ratio of applicants to jobs offered was 119.5 to 100.0.

In Illinois, according to the reports of the State public employment offices, in January, 1926, the number of applicants for domestic service, including hotels and restaurants, was 151.3 for each 100 jobs; and in January, 1927, the proportion of applicants to jobs offered had increased to 189.5. The reports of the Ohio public employment offices show for the fiscal year ending June 30, 1926, 23,510 applications by female workers for domestic and personal service as compared with 16,974 offers of positions; while during the six-month period ended December 31, 1926, there were 8,557 applications as against almost exactly the same number, 8,631, of positions offered. For the same offices the first three months of 1927 showed a surplus of applicants of 786.

Again, it must be remembered that to some extent domestic service is a seasonal trade. Thus, the August, 1926, issue of the New York Industrial Bulletin (p. 316) states that in July of that year "women for domestic places were less in demand as homes continued to close for the summer."

Two months later (in the October, 1926, number of the Industrial Bulletin, p. 21) it is reported that "returns to the cities after vacations and the reopening of households caused the calls for domestic workers to jump from 600 in August to 1,300 in September. The number of workers seeking jobs also increased, but the supply fell short of requirements and a small shortage was again reported in this group." In the next issue (November, 1926, p. 50) it was noted that the shortage was over: "Requests for domestic help approximated the supply after the September [1926] shortage." In the spring of 1927 a surplus of labor manifested itself again: "Anticipating the demand for domestic help caused by spring house-cleaning women workers started enrolling for this type of employment. The number of available workers increased from 1,064 in February [1927] to 1,509 in March [1927]. As the demand was proportionately less there was an increase in the unemployment ratio."¹

Summarizing these statements, it may be said that, while the records of employment offices do not reflect with complete accuracy the conditions of the labor market, they do usually indicate the major movements. It would, therefore, seem that if there were any great unsatisfied demand for domestic servants, the number of householders seeking help would outnumber very greatly the number of applicants for jobs.

The Question of Efficiency and Wages

As regards the second interpretation placed upon the term "shortage of domestic labor," it is sometimes stated and is probably true that many of the applicants for jobs as domestic servants are not efficient and that the efficient ones often desire wage and employment conditions which many housekeepers regard as unreasonable. In this sense there may well be a scarcity of good domestic servants. But this is no new condition. In the year 1897 Lucy Maynard Salmon published a comprehensive study entitled *Domestic Service*.² In it she quotes the opinions of a number of housewives regarding the domestic service problem. These voice exactly the same complaint regarding the scarcity of good servants as are being made to-day. Thus one woman wrote: "When I began housekeeping in 1870 I had one general housework girl who stayed with me nine years. Now I consider myself fortunate to retain a cook or a second girl as many weeks."

Another wrote as follows: "Thirty years ago I had no difficulty whatever. I do not think my character has changed meantime, or my method of treating servants, or our style of living, yet now it is almost impossible to secure servants."

¹ The Industrial Bulletin (Albany, N. Y.), April, 1927, p. 194.

² Salmon, Lucy Maynard: *Domestic Service*. New York, The Macmillan Co., 1897.

A third reported: "The question is very different now from what it was 40 years ago"; and a fourth states that "The problem in this place grows more perplexing every year."

These statements, it must be remembered, were made 30 years ago, at a time when immigration was unrestricted and very heavy.

Nor does this particular period appear to be at all exceptional. During the decade just preceding the beginning of the World War in 1914, immigration into the United States reached its maximum, in some years exceeding a million a year. Yet, in 1915, with this great mass of accumulated alien labor of all classes, the same complaints about the difficulties of securing efficient domestic servants were made. Thus, a report of the commission on household employment made to the annual convention of the Y. W. C. A. in May, 1915, seeks to find a "solution of the so-called servant problem," and makes the following significant remarks regarding the lack of domestic servants and the unwillingness of women, especially the foreign born, to enter domestic service:

Another interesting item is that the proportion of foreign-born to native-born white women in this occupation is changing. More and more we shall have to depend on native-born Americans to fill the ranks of household employment, as the present immigrants prefer the factory.

What is the cause of this boycott of household employment on the part of wage-earning young women—a boycott the more serious because unconscious, unpremeditated, unorganized, and of steadily increasing proportions? This would be sufficiently distressing even though only the employers, and indirectly routine family life, were suffering, but in the present crowded condition of the business and industrial fields the wage-earning young women are fighting desperately for a bare existence. Stenographers, clerks, factory employees have no work, while hundreds of housewives can get no help. It would seem such an easy, simple thing to transfer all these girls without work to the positions without workers, but they will not go. When the situation among the unemployed was at the most acute stages in New York this past winter, the head of the city employment bureau said he could place 5,000 young women in domestic employment if he could get them.

In the same year (1915) in which the above report was made there was published another study of domestic service, entitled "Wanted a Young Woman to do Housework," by C. H. Barker. In it the following statement is made regarding the scarcity of domestic help existing at that time: "With a few notable exceptions, only those who are unqualified to compete with the business woman are left to help the householder, and the problem confronting her to-day is not so much how to change inefficient to efficient help, but how to obtain any help at all."

Analysis of Immigration Statistics

FROM the above citations it would appear that the complaint regarding the scarcity of good domestic servants has been a perennial one, and has been just as strong in times of heavy immigration as it is now. An analysis of the recent immigration figures, moreover, indicates that the restrictive immigration laws could not well have had any serious effect upon the supply of foreign domestic servants for the reason that there has been no important decrease in the immigration of alien females belonging to the races from which domestic servants have been chiefly drawn.

It is true that since the passage of the quota immigration laws there has been a sharp decline in the number of immigrants classed in the

immigration returns as domestic servants. The detailed figures were given in an article in the Labor Review for February, 1927.³ Thus for the four years 1911-1914 the average number of immigrants classed as servants was 127,077, while for the two years 1925-1926 the average number was only 28,756. Classification by sex is not given in the official reports, but it is known that the servant classification in the immigration returns includes so few males that for practical purposes it may be regarded as composed of females.

These figures, however, by no means tell the whole story regarding the actual number of immigrants who enter domestic service after arrival in the United States. In the first place, the classification of an immigrant in a particular occupation at the time of entry depends on the immigrant's statement as to previous occupation. Very many who class themselves as of a certain occupation at time of arrival later enter entirely different pursuits. A foreign woman calling herself a domestic servant and having little or no idea at the time of what the future may actually offer may become a clothing worker in New York, and the wife of a gardener, classified as of "no occupation" at time of arrival, may later with her husband obtain employment in the service of a country or suburban house which desires a man gardener and a woman cook or housekeeper.

That this actually occurs on a large scale is evident from the fact that decennial censuses of occupations show no such number of foreign-born females in domestic and personal service as would be there if all those who classed themselves as "servants" on arrival actually entered such service after arrival.

As a result of this inevitable following by many immigrants (women as well as men) of occupations in this country of which they had no idea at the time of landing, the occupational classification in the immigration returns can not be taken as indicative of the actual occupational distribution of such persons after entry into the American labor market.

As regards female domestic servants, indeed, it would seem that the potential supply from immigration is most accurately represented by the total number of arrivals belonging to the races preferred for domestic service by most American housewives. When this analysis is made, it appears that while the total number of female immigrants entering this country has decreased markedly since the war and since the passage of the restrictive acts, there has been little or no decrease in the number of females of the races generally preferred by American households for domestic service, such as the Irish, English, and German.

This is brought out in the following table which shows the average yearly number of immigrant females 10 years of age and over, by principal races, for the two years immediately preceding the war (1913 and 1914), when immigration was unrestricted, and for the two years 1925 and 1926. The races are arranged in two groups, the first group including those which in the past have probably furnished the largest number of foreign-born domestic servants and seem to be generally preferred for such service by employers of this class of labor, namely, English, French, German, Irish, Scandinavian, Scotch, and Japanese.

* "Changes in occupational character of immigration since the war," p. 1.

TABLE 1.—AVERAGE YEARLY IMMIGRATION OF FEMALES IN SPECIFIED TWO-YEAR PERIODS, BY RACE¹

Race or people	Average yearly immigration	
	1913 and 1914	1925 and 1926
Group I:		
English	23,514	22,218
French	8,397	9,715
German	34,970	26,459
Irish	17,528	19,835
Scandinavian	13,275	7,905
Scotch	9,206	13,830
Japanese	5,397	243
Total for Group I	112,287	100,205
Group II:		
Croatian and Slovenian	10,658	371
Finnish	4,880	387
Hebrew	53,664	5,612
Italian	71,919	4,502
Lithuanian	8,940	237
Magyar	15,497	543
Mexican	5,550	9,520
Polish	54,206	1,761
Russian	6,393	538
Ruthenian	12,372	232
Slovak	10,900	254
Other races	37,474	8,329
Total for Group II	292,453	32,286
Total	404,740	132,491

¹ U. S. Department of Labor. Bureau of Immigration. Annual reports for the years ending June 30, 1913 (p. 46), 1914 (p. 42), 1925 (p. 45), and 1926 (p. 42).

From this table it appears that, comparing 1925 and 1926 with pre-war years, the number of immigrant females of the races principally in demand for domestic service, decreased from 112,287 to 100,205, or less than 11 per cent, and that the number of French, Irish, and Scotch actually increased. Significant decreases in this group, indeed, occurred only in the case of the Scandinavian and Japanese. In other words, the great decline in the total number of female immigrants between these two periods occurred among those races—such as the Slavs and Hebrews—which probably furnish very few domestic servants to American households and which, as a rule, are not preferred for this service.

Decrease in Domestic Servants Over a Period of Years

FROM the above analysis it would seem that the immigration restriction laws have probably not had much effect on the potential supply of foreign domestic servants, certainly no such effect as the crude immigration figures would suggest. This would lead to the conclusion that any existing shortage of domestic servants must be due to other causes. This conclusion, moreover, is strengthened by the fact that for a period of 50 years, irrespective of immigration conditions, there has been a decline in the proportion of the population of the United States engaged in domestic service occupations. This point is brought out in an article in the Labor Review for May, 1925 (p. 16), where is shown the proportion of the population engaged in various employments over a period of years.

The data there presented show that the domestic and personal service class (listed in the study as "servants, housekeepers, stewards,

stewardesses, etc.") constituted 2.5 per cent of the population in 1870, 2.1 in 1880, 2.3 in 1890, 2.3 in 1900, 2.0 in 1910, and 1.6 in 1920. It thus appears that the proportion of the population in domestic and personal service has never in subsequent years been so great as it was in 1870. Still more striking is the fact that the percentage figures decreased from 2.3 in 1900 to 2.0 in 1910; that is to say, during a decade of unrestricted and extremely heavy immigration.

The increasing disinclination of females to enter domestic service is also shown in the following table which gives the percentage of gainfully employed females 10 years of age and over employed in domestic and personal service, by race, for 1900, 1910, and 1920.

TABLE 2.—PER CENT OF GAINFULLY OCCUPIED FEMALES 10 YEARS OF AGE AND OVER OF SPECIFIED RACE AND PARENTAGE EMPLOYED IN DOMESTIC AND PERSONAL SERVICE, 1900, 1910, AND 1920¹

Race and parentage	1900	1910	1920
	Per cent	Per cent	Per cent
Native white, native parentage.....	30.3	23.0	17.4
Native white, foreign or mixed parentage.....	30.3	23.2	16.1
Foreign-born white.....	53.2	45.9	35.8
Negro.....	51.8	42.4	50.3

¹ United States Department of Commerce, Bureau of the Census, Twelfth Census, 1900, Special Reports, Occupations, Washington, 1904, p. ev; and Fourteenth Census, 1920, Vol. IV, Population, Occupations, Washington, 1923, p. 341.

This table shows that not only did the percentage of females of every race except the negro in domestic and personal service decline between 1910 and 1920, but also that the percentage for every race without exception declined during the period 1900 to 1910, when immigration, as noted, was unrestricted and of a very large volume.

In view of the facts set forth above the conclusion seems inevitable that any present shortage of efficient domestic servants which may exist is not due to immigration restriction, but to far-reaching and continuing economic and social causes entirely unrelated to immigration.⁴

Why Workers Borrow: A Study of Four Thousand Credit Union Loans

By MILDRED JOHN, FELLOW IN RESEARCH DEPARTMENT WOMEN'S EDUCATIONAL AND INDUSTRIAL UNION, BOSTON, MASS.

THE credit union is a twentieth century attempt to provide credit facilities for people who are independent but have no margin of savings and hence no standing with the banks. This investigation was undertaken in order to discover something of the financial backgrounds of such people, their family responsibilities, and the crises in life for which they are forced to borrow. Four thousand records were gathered from seven credit unions in Boston and one in Milwaukee. The amounts and purposes of the loans, ages, occupations and salaries of the borrowers, and the number of dependents were reported. Many records showed also the property owned and insurance carried.

* An article entitled "America's Domestic Servant," by Ethel M. Smith, in the May, 1927, issue of Current History, gives additional data regarding certain of the points covered in this article.

Credit unions are like people—no two are identical. They can not be fitted arbitrarily into classes, but can with reservations be grouped into general, neighborhood, company, sectarian or racial, and fraternal types. They are grouped in this fashion because of the limitation they place upon membership. In Massachusetts, where the most extensive development of credit unions in the United States has taken place, the earliest ones were of the sectarian or parish type. They were organized among the French-Canadians, and limited membership to persons in parishes where the credit unions were located. Some few years later numerous general credit unions were organized. They have been found less successful than other types because their almost unrestricted membership makes it very difficult to appraise the reliability of those applying for membership, and to make certain the repayment of loans granted. Recently, credit unions independent of the management have been formed among the employees of large corporations. These as a rule have been prosperous, and are the predominating type at the present time.

Credit union organization is so elastic that it can be made to fit varied situations, and because of this adaptability it has succeeded admirably. The first credit union in Massachusetts, chartered in 1909, started with a capital of a few dollars. In 1925 there were 86 credit unions operating in the State, with gross assets of \$8,500,000. The growth has been rapid but not too rapid to insure stability. Between 1909 and 1925 only 16 credit unions failed, and while 48 liquidated it was without loss to the member shareholders. These figures indicate clearly that the credit union has passed the experimental stage, and may be considered as a permanent economic factor.

Membership in the various credit unions of Massachusetts has grown from the few who started the first one in 1909 to 55,000 in 1925. Most of these people are permanent members who borrow when they must and save when they can.

Nationality, Marital Condition, and Age of Borrowers

TABLE 1 shows the membership of the eight credit unions studied and the per cent covered by the present study. As the table shows, there were approximately 14,000 members in the eight credit unions; the majority of these had belonged to their respective organization three years or more.

TABLE 1.—CREDIT UNIONS WHICH SUPPLIED RECORDS FOR THIS STUDY

Credit union	Approximate membership	Sample studied	
		Number	Per cent of membership
Telephone Workers' Credit Union.....	6,000	1,000	16.7
City of Boston Employees Credit Union.....	1,800	600	33.3
Blue Hill Neighborhood Credit Union.....	2,000	500	25.0
Boston & Maine Railway Employees Credit Union.....	1,800	500	27.8
Industrial Credit Union.....	900	400	44.4
Blake-Knowles Credit Union.....	300	250	83.3
Walworth Employees Credit Union.....	300	250	83.3
Milwaukee Municipal Employees Credit Union.....	600	500	71.3
Total.....	13,700	4,000	29.2

Table 2 shows the distribution by sex of the borrowers in the various credit unions:

TABLE 2.—DISTRIBUTION OF 4,000 BORROWERS FROM CREDIT UNIONS, BY SEX AND CONJUGAL CONDITION

Credit union	Men			Women			Both sexes		
	Single	Married	Total	Single	Married	Total	Single	Married	Total
Telephone workers.....	85	367	452	517	31	548	602	398	1,000
Boston & Maine.....	100	349	449	48	3	51	148	352	500
Blue Hill.....	62	276	338	27	135	162	89	411	500
Industrial.....	213	82	295	73	32	105	286	114	400
Blake-Knowles.....	68	162	230	18	2	20	86	164	250
Walworth.....	103	112	215	26	9	35	129	121	250
Boston Municipal.....	113	465	578	14	8	22	127	473	600
Milwaukee municipal.....	67	424	491	9	-----	9	76	424	500
Total.....	811	2,237	3,048	732	220	952	1,543	2,457	4,000

Of the 4,000 records of loans gathered, 3,048 were for men and 952 for women. In the telephone workers' credit union the number of woman borrowers exceeded the number of men who were granted loans, but only because five-sevenths of the employees were women.

It was not possible to determine exactly the nationality grouping of the borrowers, but the great majority were American born, largely of Irish, English, and Russian-Jewish stock. There were few southern Europeans, and Germans were rare in any but the Milwaukee Credit Union. The fact that there are so few immigrants is due to the credit unions chosen for the study. There are many credit unions largely composed of foreign born who appreciate their value because they are familiar with people's banks and other cooperative credit societies which are quite common in Europe.

Over 73 per cent of the men and 23 per cent of the women who were borrowers from the credit unions studied were married.¹ However, two-thirds of the married women were members of two general credit unions and were not employed outside the home.

Most of the men who borrowed were between 25 and 40 years old. They were at the prime of life when their family responsibilities were heaviest but when their earning power should have been greatest. The women fell into two divisions: The younger ones under 25 who might in a short time leave their jobs to marry, and the older ones, also in the prime of life, who found it necessary to borrow for their dependents and to make provision for themselves in old age. In one credit union composed of civil-service employees, who have long tenure of service, there were more older men borrowing than anywhere else.

¹ Unfortunately no data were available which indicated the number of divorced, separated and widowed. Space on the application blanks merely called for a check opposite the word "married" or "single."

Occupations and Wages of Borrowers

THE number of borrowers, classified by occupation and sex, is shown in Table 3:

TABLE 3.—OCCUPATIONAL DISTRIBUTION OF BORROWERS

Occupation	Men		Women		Both sexes	
	Number	Per cent	Number	Per cent	Number	Per cent
Skilled artisans.....	1,064	34.9	28	2.9	1,092	27.3
Clerical workers.....	616	20.2	273	28.7	889	22.2
Unskilled laborers.....	239	7.8	8	.8	247	6.2
Salesmen.....	114	3.7			114	2.9
Small business men.....	165	5.4	22	2.3	187	4.7
Professional workers.....	31	1.0	30	3.2	61	1.5
Firemen.....	455	14.9			455	11.4
Policemen.....	76	2.5	2	.2	78	2.0
Telephone operators.....			429	45.1	429	10.7
Housewives.....			131	13.8	131	3.3
Other occupations.....	276	9.1	29	3.0	305	7.6
No data.....	12	.4			12	.3
Total.....	3,048	100.0	952	100.0	4,000	100.0

As is seen, the occupations of the men fell into four main classifications: The skilled artisans, the clerical workers, firemen, and the unskilled laborers. The largest single group was that of firemen. In both municipal credit unions they formed the majority of borrowers. Men in the skilled trades formed one-third, clerical workers one-fifth, and unskilled laborers one-thirteenth of the total number of borrowers. There were in the two general credit unions a number of men who had independent businesses—small stores and shops of various kinds—and many of the artisans were self-employed, particularly the tailors and painters. There was a noticeable lack of professional men among those who were granted loans, even in the general credit unions to which they have access. This may be accounted for in three ways: They do not know anything about credit unions, they have no need to use them, or they are too proud to do so. The last reason is perhaps the most important, for it was found that many men in comfortable circumstances had an idea that credit unions were semicharitable institutions and therefore reserved for the use of the "poor working men."

Forty-five per cent of the women in the sample group were employed as telephone operators and 29 per cent as clerical workers. The group in professional pursuits, mainly school-teachers and nurses, is small, but three times greater in proportion than among the men studied. There is also a group of women who have embarked on enterprises of their own and often need help to tide them over dull periods. Housewives, whose cherished ambitions may be new sideboards or rugs, also belong to credit unions. Although they have no earnings, most of them save enough out of their housekeeping allowances to pay up their loans, and there were almost no cases of the husband's having to pay a defaulted loan.

As Table 4 shows, the modal wage for men lies between \$36 and \$40 a week, and for women between \$21 and \$25. In the neighborhood credit union, where 61 per cent of the men were self-employed, the

weekly earnings ran higher, the mode being between \$46 and \$50. On the other hand, in the railway credit union the mode lay between \$31 and \$35. Few of these borrowers earned more than \$250 a month.

TABLE 4.—WEEKLY EARNINGS OF BORROWERS FROM SIX CREDIT UNIONS, BY SEX¹

Classified weekly earnings	Number earning each classified amount					
	Men		Women		Both sexes	
	Number	Per cent	Number	Per cent	Number	Per cent
\$20 or under	11	0.4	276	30.8	287	8.2
\$21 to \$25	70	2.7	290	32.3	360	10.3
\$26 to \$30	314	12.1	129	14.4	443	12.7
\$31 to \$35	444	17.1	33	3.7	477	13.6
\$36 to \$40	631	24.2	19	2.1	650	18.6
\$41 to \$45	479	18.4	10	1.1	489	14.0
\$46 to \$50	262	10.1	4	.4	266	7.6
\$51 to \$55	84	3.2	1	.1	85	2.4
\$56 to \$60	115	4.4	2	.2	117	3.3
\$61 to \$65	34	1.3	1	.1	35	1.0
\$66 to \$70	27	1.0			27	.8
\$71 to \$75	53	2.0	1	.1	54	1.5
Over \$75	52	2.0			52	1.5
Housewives			131	14.6	131	3.7
No data	27	1.0			27	.8
Total	2,603	100.0	897	100.0	3,500	100.0

¹ Modal earnings only (piecework) were available for two credit unions. In these, those of skilled men lay between \$35 and \$40, of unskilled men between \$25 and \$30, and of women between \$20 and \$22.50.

Property Owned and Insurance Carried

SOME of the more thrifty and ambitious have, with the aid of building and loan associations, bought their own homes. In four credit unions it was possible to find out whether or not the borrowers possessed property. Of 1,702 male borrowers 483, or 28 per cent, owned property, while of 298 female applicants for loans 80, or 21 per cent, owned property. The neighborhood credit union required the applicants to state the value of their holdings. These averaged between \$10,000 and \$20,000 apiece, but it should be stated in this connection that the real estate was in an outlying district where land values had increased rapidly. The amount does not represent their actual investment, but rather the appreciation in the value of the land. Nor do the figures represent complete ownership. Often the equity which the men owned was small, but mortgage payments had to be met and to do this they had to save. There was no way of discovering what other savings the applicants for loans had, as they were not asked to list their securities or savings accounts. However, it was customary for men, when they could, to offer collateral for their loans, since they could secure a lower interest rate—5 instead of 6 per cent. When a loan was thus covered the borrower was not required to give any information about himself, and that excellent source was therefore closed to the investigator. In one credit union a third of the loans were made on collateral, and in another fully one-half. The percentage in the other associations does not run nearly so high as this, and in one no collateral loans are made. On one application

blank borrowers were required to designate whether they owned automobiles; it was found that 180 of 491, or 36 per cent, did possess them, while but 32 per cent of the men owned real estate.

Where statistics were available, information concerning insurance was gathered. In three credit unions, 87 per cent of the men carried insurance. The policies were not large (usually less than \$3,000), but it is encouraging to see such a large proportion of the men of small means thus safeguarding themselves and families. A good many women—nearly 40 per cent of the borrowers in these three organizations—were carrying insurance, particularly those single women who had dependents, and women who had insurance before they were married did not as a rule let their policies lapse.

Dependents of Borrowers

OVER 73 per cent of the men were married but an even greater proportion had dependents, as 85 per cent had persons whom they were supporting:

TABLE 5.—NUMBER OF DEPENDENTS OF BORROWERS FROM SIX CREDIT UNIONS

Number of dependents	Borrowers having specified number of dependents					
	Men		Women		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
One	461	17.7	97	10.8	558	15.9
Two	505	19.4	34	3.8	539	15.4
Three	492	19.9	17	1.9	509	14.5
Four	386	14.8	1	.1	387	11.1
Five	191	7.3	4	.4	195	5.6
Six	88	3.4	1	.1	89	2.5
Seven	60	2.3			60	1.7
Eight	24	.9			24	.7
Nine	6	.2			6	.2
Ten or more	8	.3			8	.2
No dependents	376	14.4	731	81.5	1,107	31.6
No data	6	.2	12	1.3	18	.5
Total	2,603	100.0	897	100.0	3,500	100.0

Many of the single men had aged parents or younger brothers and sisters for whom they were caring. Only 18 per cent of the women claimed dependents, but the large group of single women borrowers in the telephone workers' credit union contained also the highest proportion of women with dependents; only 31 of these women out of a total of 548 were married, but 108 had dependents. In the neighborhood credit union, where 135 of 162 women were married, only 6 had dependents. These figures indicate that it is the men who bear the heavier social burdens, and that single women with dependents, like the men, must seek financial protection.

Although the types of people belonging to the credit union studied differ considerably, the size of their families runs about the same. In the neighborhood and municipal credit unions, three was the most common number of dependents, while two was the usual number in the industrial and telephone workers' credit unions, and the railroad workers most frequently supported but one. There is not a great deal of difference between the numbers of men who had one, two,

and three dependents, but there is a decided drop after the third, as, for example, 505 men had two dependents, 492 had three, but only 386 had four. The modal class for the men was that with two dependents, for the women, one dependent. Most of the men, as has been stated, belonged to the skilled trades or clerical group. However, the members of the credit union that listed the largest number of unskilled workers had the greatest proportion of families numbering more than three. This seems a very impersonal way to discuss the human factor, but it shows as nothing else can the burdens these borrowers are carrying. They have given hostages to fortune, and they must provide for emergencies, since their jobs are often insecure. Thus credit unions assist men in carrying their social responsibilities—they are a kind of insurance against family misfortunes.

Purposes and Amounts of Loans

THE purposes for which people borrow reveal dramatically the crises which come into their lives and the need of the average worker for some source of credit at such times. These purposes are shown in Table 6 and the two accompanying charts:

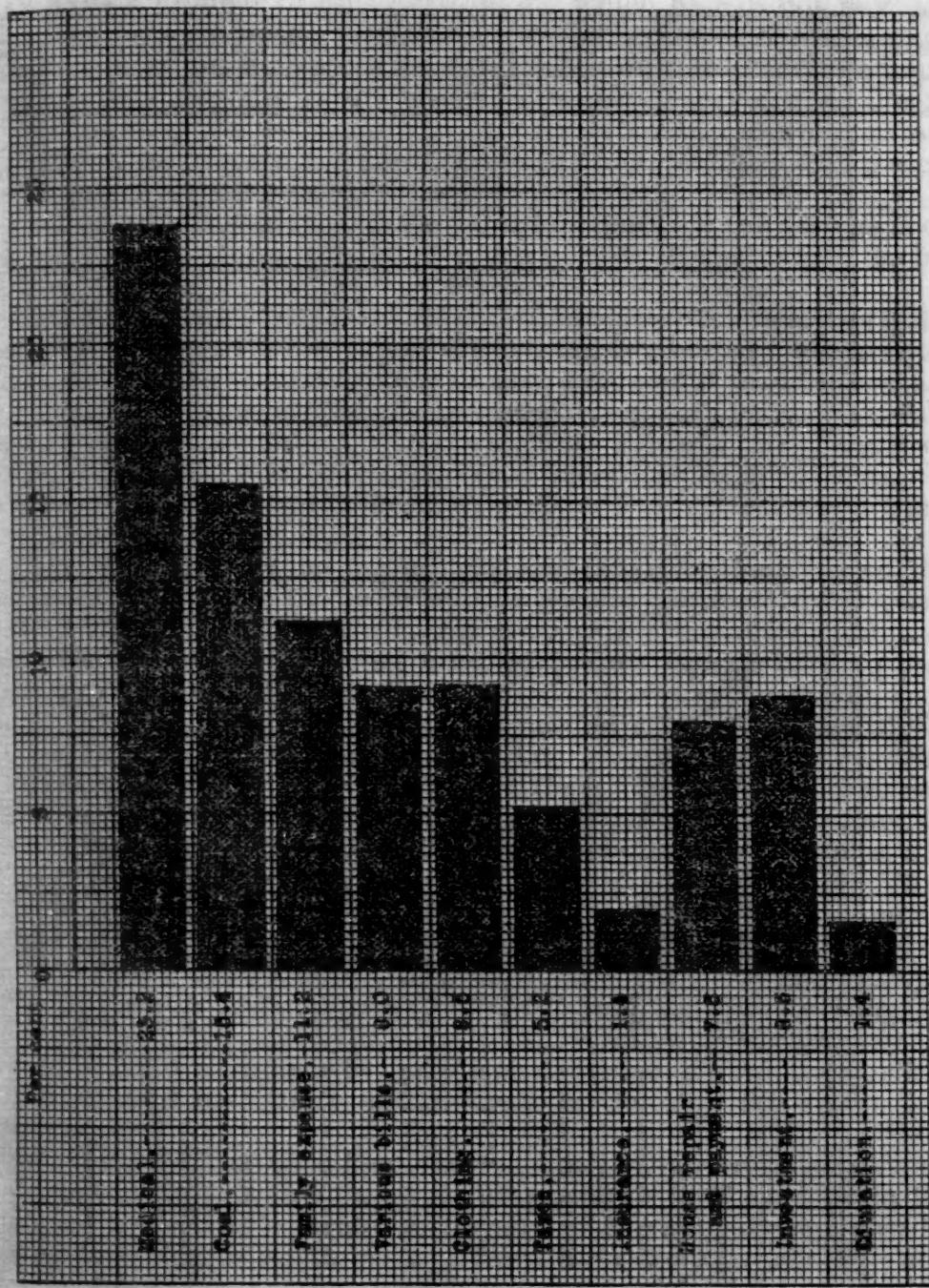
TABLE 6.—PURPOSES FOR WHICH LOANS WERE GRANTED

Purpose of loan	Loans granted for each purpose to—					
	Men		Women		Both sexes	
	Number	Per cent	Number	Per cent	Number	Per cent
Medical	577	18.9	352	37.0	929	23.2
Coal	540	17.7	78	8.2	618	15.5
Family expenses	389	12.8	62	6.5	451	11.3
Various bills	296	9.7	26	2.7	322	8.1
Clothing	152	5.0	189	19.9	341	8.5
Taxes	168	5.5	40	4.2	208	5.2
Insurance	45	1.5	12	1.3	57	1.4
Furniture	71	2.3	19	2.0	90	2.3
House repairs and payments	263	8.6	39	4.1	302	7.6
Investment	262	8.6	61	6.4	323	8.1
Education	47	1.5	12	1.3	59	1.5
Vacation	33	1.1	24	2.5	57	1.4
Automobiles	39	1.3			39	1.0
Radios	3	.1			3	.1
Renewals	56	1.8	5	.5	61	1.5
To pay notes	19	.6			19	.5
Death	20	.7			20	.5
All other	60	2.0	33	3.5	93	2.3
No data	8	.3			8	.2
Total	3,048	100.0	952	100.0	4,000	100.0

The most common reason for borrowing is to meet expenses incurred during illness—18.9 per cent in the case of the men, and 37 per cent for the women. The term "medical" also includes dental bills, of which there were a great number. In one credit union 47 per cent of the women and 20 per cent of the men listed under "medical" borrowed specifically to pay dentists' bills. Even though the reason given may not always have been the real reason, yet these numerous loans to maintain health would appear to be one of the best arguments for health insurance. Although no effort is made to appeal for sympathy, for those who pass on the application are members of their own group who know what their needs are, the circumstances are sometimes pitiful. One girl of 22 had borrowed, and

repaid over a period of several years, nearly \$600 for surgical and hospital care for her crippled brother. In other cases, the birth of children necessitated borrowing, for, in addition to the medical care, household expenses increased during the mother's absence from her tasks. Although many of the men were entitled to sick benefits

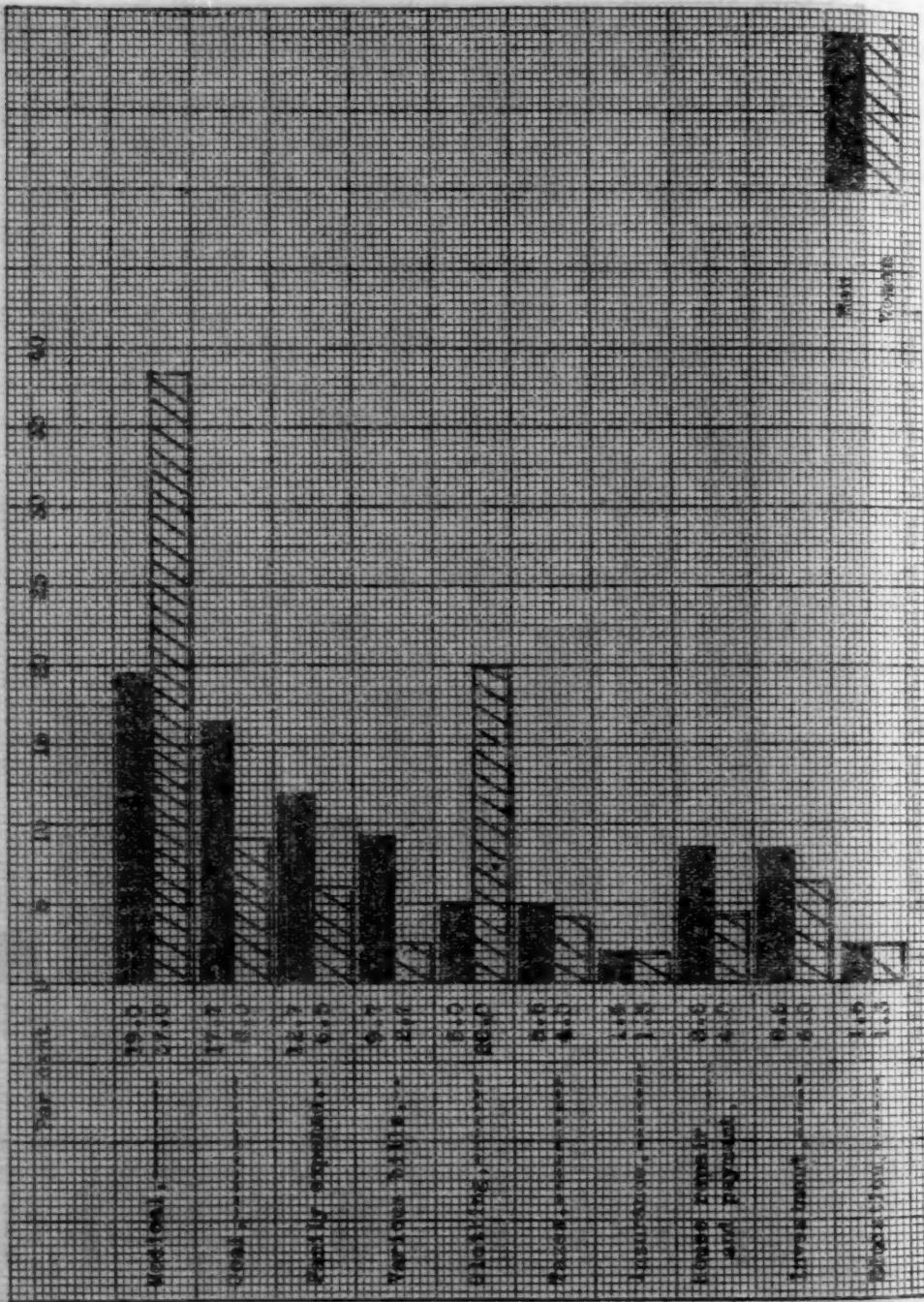
CHART I.—PERCENTAGE DISTRIBUTION OF PURPOSES OF LOANS



from various sources, they found the sums paid inadequate, and were forced to borrow if they were out of work for any length of time. Education in preventive medicine is very directly related to credit union borrowing, for many loans were granted "to have my boy's teeth straightened" or tonsils removed.

Coal was the need second in importance for which borrowing was necessary. Many men could not raise the money needed to meet their coal bills, and the coal merchants were not so willing to extend credit as is often supposed. It is costly and unsatisfactory to buy coal in small quantities, and one man remarked that he would rather pay

CHART II.—PERCENTAGE DISTRIBUTION, BY SEXES, OF PURPOSES OF LOANS



6 per cent interest than be dunmed all winter. Taxes and insurance, like coal, must be paid for at stated times, and so again men must borrow.

"Family expenses" may mean anything from a new kitchen stove, around which so much of the family life in these homes revolves, to

new tires for the Ford. One man, when asked what he meant by family expense, grinned as he recited, "The butcher, the baker, the candlestick maker." He went on to explain that he had been laid off for several weeks and that although the income had stopped the bills piled up and the rent came due.

The reason "various bills" indicates a kind of despair. A man may have a number of bills outstanding which he can not pay, and for which he is constantly being dunned—he may even have his wages attached—and so he groups them and borrows the entire amount preferring to pay the credit union in weekly installments. People whose margins are so small find it impossible to escape situations like these, for no matter how carefully they planned emergencies would arise.

Clothing did not play such an important part for the men as it did for the women, and when the men did borrow it was usually to buy clothing for their families, not for themselves.

Loans for medical expenses, coal, family expenses, "various bills," and clothing formed four-fifths of the total number of loans granted. They were made to satisfy current and emergency needs—to enable the borrowers to keep their heads above water. There was, however, a second group of loans which were made for progressive purposes. These loans comprised only one-fifth of the total number granted, but even this was an increase over former years, and thus a hopeful sign.

Paying for their homes, improving, and repairing them were among the most important purposes of this second group. Many people were buying their homes through cooperative banks (building and loan associations) and would need to borrow occasionally to make their payments. The same was true of interest payments on mortgages privately held. Often a man needed several hundred dollars to complete the down payment on a house he wanted to buy. Such loans do not mean improvidence, but that because of illness or some other cause these persons were forced to use the money they had planned to set aside. After they had acquired their homes, they wished to keep them in good condition and improve them. Many loans were granted to put in furnaces, bathrooms, and other modern equipment. One man had borrowed each year for five years, first to buy additional property, then to build a garage. The next year he added a sun porch, then repaired the roof, and finally bought an oil burner. His loans never exceeded \$250, and were always promptly repaid. His willingness to carry this continuous burden of debt for the benefit of his family entitled him to the help the credit union could give.

"Investment" as used here covers loans to small business men who needed help to tide them over a dull period or to expand when their business seemed to warrant it. Many of the shopkeepers also borrowed in order to make cash payments on stock when they could buy it more cheaply that way. The most extensive borrowing for investment occurred in the two general credit unions to which these small business men could belong. However, some money was loaned to buy securities, as at the telephone workers' credit union, whose members borrowed in order to buy company stock.

Vacations, automobiles, and radios came in for their small shares, but to borrow for such purposes a man must have a very good record

and indorsers. However, because radios and automobiles are sold so largely on the installment plan, there was not a large demand for loans of this kind.

Education formed but a small part of the total loans made. Five per cent of the men and 1 per cent of the women borrowed to improve their own education or to provide it for others. One man earning \$40 a week paid his daughter's college tuition, and another—a Jewish immigrant—borrowed to send his son to the Harvard School of Business Administration. Younger men borrowed to take technical training which would help them advance in their work. The women borrowed chiefly for their own education.

The amounts loaned differed with the policies of the credit unions, with the records and characters of the applicants, and with the purposes for which they needed the loans, as is shown in Table 7. The last named was probably the most important factor, and, since four-fifths of the borrowing was to satisfy current and emergency needs, men rarely borrowed more than was absolutely necessary. Most of the loans ranged between \$51 and \$100, with the latter figure the most common. Those who borrowed for home payment and investment were granted larger sums, also those whose need for other purposes was urgent, but even these rarely borrowed more than \$500.

TABLE 7.—SIZE OF LOANS TO BORROWERS FROM SIX CREDIT UNIONS

Amount of loan	Number of loans of specified amounts to—			Amount of loan	Number of loans of specified amounts to—		
	Men	Women	Total		Men	Women	Total
\$50 and under.....	179	134	313	\$401 to \$450.....	13	6	19
\$51 to \$100.....	778	364	1,142	\$451 to \$500.....	86	29	115
\$101 to \$150.....	348	98	446	\$501 to \$600.....	17	4	21
\$151 to \$200.....	647	145	792	\$601 to \$700.....	21	1	22
\$201 to \$250.....	193	22	215	Over \$700.....	36	10	46
\$251 to \$300.....	219	70	289	Total.....	2,603	897	3,500
\$301 to \$350.....	17	5	22				
\$351 to \$400.....	49	9	58				

Often a member's account is not touched for several years, but the members know that if any emergency arises they can demand and receive help. On the other hand, many members in the organizations studied borrowed continuously; as soon as one loan was paid up they applied for others. In one credit union where a record was kept of the number of times members had been granted loans, it was found that 390 out of 600 had borrowed once a year or oftener since joining. One man had borrowed sixteen times during nine years. It would seem at first to be a habit—a rather bad one too—but the loans meant a college education for his son, a new roof on his house, and medical attention for his wife. Some one will say that he should have accumulated the money before he spent it and saved the interest. The only answer to that is, that on \$35 a week it does not seem to be within the power of human nature to save without some pressure, and the fact that he owed the credit union supplied that pressure. It is not the accepted way of saving, but it is better than not saving at all.

Per Capita Expenditure for Nonresidential Buildings in Representative Cities

IN GATHERING and publishing information concerning building operations in the cities of the United States, the Bureau of Labor Statistics has always placed emphasis on residential building,¹ and previous articles have covered this phase of the subject. While the building of homes is the most important part of the construction industry, the building of factories, schools, stores, theaters, churches, etc., is also of great importance and interest. The purpose of the present article is to show the annual per capita expenditure for the various types of this nonresidential building in the more important cities of the United States. The study covers the six-year period from 1921 to 1926.

The statement below shows the average annual per capita expenditure for each of the different groups of nonresidential buildings in the 257 identical cities for which reports were received for the six years 1921 to 1926. For purposes of comparison the data for residential buildings as a whole are also given.

In these 257 cities there was an average annual per capita expenditure of \$26.79 for nonresidential buildings during the six-year period. This compares with a per capita expenditure of \$47.99 for residential building. The per capita expenditure for all new buildings was \$74.78.

Of the \$26.79 spent for nonresidential buildings, nearly one-half, or \$13.06, was spent in industrial and commercial construction, that is, for factories and workshops, stores, warehouses, and office buildings. The automobile, although a comparatively new factor in American life, accounted for the next largest expenditure during this period, more money being spent for the erection of garages and service stations than for schools, churches or amusement buildings.

In this six-year period nonresidential building accounted for only 35.8 per cent of all new building, and residential building 64.2 per cent.

	Annual per capita expenditure	Per cent
Amusement buildings	\$2.02	2.7
Garages and service stations	3.84	5.1
Churches	1.27	1.7
Schools and libraries	3.62	4.8
Institutions ²	.97	1.3
Factories, stores, warehouses, and office buildings	13.06	17.5
Public buildings and public works ³	1.51	2.0
Total nonresidential buildings ⁴	26.79	35.8
Residential buildings	47.99	64.2
Total new buildings	74.78	100.0

The table on page 19 shows the per capita expenditure for each of the different kinds of nonresidential buildings, and for residential build-

¹ See Labor Review for May and June, 1927.

² Includes hospitals, asylums, sanitariums, homes, etc.

³ Includes Government buildings, courthouses, city halls, jails, prisons, railroad stations, car barns, bridges, electric light plants, etc.

⁴ Includes per capita expenditure for sheds, stables and barns, etc., not included in the distribution.

ings as a whole in each of the cities of the United States having an estimated population of 200,000 or over on July 1, 1926.⁵ Data are shown separately for each of the five boroughs of New York City.

The greatest per capita expenditure for nonresidential building as a whole was in the Borough of Manhattan, where \$52.44 was the average annual expenditure for each inhabitant during this six-year period. Dallas, Tex., spent \$38.34 annually for each inhabitant, a greater per capita expenditure than for any other city including New York as a whole. The smallest expenditure for nonresidential buildings was in New Orleans, where the annual expenditure was only \$14.52 per inhabitant.

The honor of leading in expenditure for educational buildings falls to Jersey City, which spent an average of \$6.34 per person for this class of structure, while Newark, its near neighbor, spent only 98 cents. The Borough of Queens and Richmond in New York City spent annually \$7.87 and \$6.81, respectively, for schools and libraries during this period, while Boston spent an average of only \$1.67 per person per year for school buildings.

In each city shown in the table more money was spent for industrial and commercial buildings than for any of the other kinds of nonresidential buildings. The annual per capita disbursement for these buildings ranged from \$6.26 in San Antonio, Tex., to \$39.94 in the Borough of Manhattan. New York City (all boroughs) spent \$20.56 per inhabitant, being surpassed only by Dallas with \$24.15.

Garages and service stations accounted for a greater outlay in most cities than any other group except the industrial and commercial buildings. There was, however, a great difference in the amount expended in the different cities, ranging from 64 cents in New Orleans to \$10.43 in Providence.

In most of the cities more money was spent for amusement buildings than for churches. In New York there was a per capita expenditure for amusement buildings of \$3.51 and for churches of only \$1.03. In Chicago the amounts were \$2.23 and \$1.54, respectively. On the other hand, Baltimore spent only 42 cents annually per inhabitant for theaters, movie houses, etc., and \$1.07 for religious buildings, and Toledo showed an annual per capita expenditure of only 33 cents for amusement buildings and \$2.02 for churches.

There is a wide difference in the expenditure of cities of nearly the same size and in the same territory. In Dallas, for instance, there was a per capita expenditure for nonresidential buildings of \$38.34 and in San Antonio only \$16.47, or less than half that of Dallas. In Newark and Jersey City, while the total per capita expenditure for nonresidential buildings was practically the same, the expenditure for the different classes of buildings differed widely. Newark spent larger than average amounts for industrial and commercial buildings and garages, and lower than average amounts for churches and schools, while Jersey City's per capita disbursements were far above the average for educational and religious buildings and below the average for stores, factories, etc., and for garages and service stations.

⁵ As Census Bureau did not estimate the population of Akron, Ohio, Atlanta, Ga., Los Angeles, Calif., Portland, Oreg., or Seattle, Wash., data could not be presented for these cities.

The highest per capita outlay for public buildings and public works was in St. Paul (\$8.43) and the lowest in St. Louis (9 cents). Washington, D. C., spent only 27 cents annually for each resident for this class of structure. Institutions, such as hospitals, sanitaria, etc., account for the lowest per capita expenditure of any of the groups of nonresidential buildings in most of the cities.

For residential buildings the per capita disbursement was highest in New York City, where the average for all boroughs was \$89.80, in the Borough of Queens \$214.56, and in the Bronx \$125.48. New Orleans showed the lowest amount for dwelling places, \$18.24. Among the cities which spent large sums for residential buildings were Washington, D. C. (\$71.88), Detroit (\$71.73), Dallas (\$68.12), and Chicago (\$63.83).

AVERAGE ANNUAL PER CAPITA EXPENDITURE FOR DIFFERENT KINDS OF NON-RESIDENTIAL BUILDINGS IN CITIES OF 200,000 OR OVER, 1921 TO 1926

City and State	Amusement buildings	Garages and service stations	Churches	Schools and libraries	Institutions ¹	Factories, stores, warehouses, office buildings, etc.	Public buildings and works	Total non-residential	Total residential
Baltimore, Md.	\$0.42	\$3.55	\$1.07	\$3.90	\$1.43	\$8.55	\$1.17	\$20.15	\$24.28
Birmingham, Ala.	1.91	1.58	2.24	3.76	.38	13.99	1.41	25.41	32.96
Boston, Mass.	1.49	5.10	.50	1.67	1.77	13.43	1.30	25.89	26.58
Buffalo, N. Y.	1.67	3.20	1.49	2.27	.11	9.34	.27	18.48	25.16
Chicago, Ill.	2.23	3.21	1.54	3.94	1.27	17.55	1.90	32.36	63.83
Cincinnati, Ohio	1.63	3.22	1.15	2.08	1.87	8.78	.17	19.01	33.03
Cleveland, Ohio	1.53	2.19	.97	2.99	.86	13.16	2.66	25.22	34.17
Columbus, Ohio	1.10	4.35	1.31	3.68	.32	12.46	1.03	24.75	50.88
Dallas, Tex.	2.50	2.67	2.30	2.25	2.56	24.15	1.51	38.34	68.12
Denver, Colo.	.63	4.61	1.21	4.59	1.42	9.11	.61	23.10	38.62
Detroit, Mich.	1.80	5.69	1.52	4.49	.27	16.60	.70	32.09	71.73
Indianapolis, Ind.	1.29	3.38	1.61	2.04	.39	10.48	1.38	20.92	37.16
Jersey City, N. J.	.54	3.11	2.49	6.34	1.97	10.88	3.53	20.03	30.90
Kansas City, Mo.	2.30	2.03	1.92	3.87	.54	11.91	.53	23.52	39.74
Louisville, Ky.	1.16	2.35	2.47	1.59	1.40	10.16	1.46	21.88	40.97
Milwaukee, Wis.	1.86	4.05	.85	2.06	.31	8.10	.90	19.40	33.73
Minneapolis, Minn.	.80	2.79	.96	4.06	.33	8.52	1.74	19.45	36.33
Newark, N. J.	1.85	6.00	.36	.98	1.75	17.61	2.21	31.53	36.76
New Orleans, La.	1.67	.64	.67	2.44	1.23	7.35	.27	14.52	18.24
New York, N. Y.	3.51	5.03	1.03	3.81	.99	20.56	1.10	36.34	89.80
Borough of the Bronx	4.35	7.24	1.09	5.84	.45	10.02	1.79	30.97	126.48
Borough of Brooklyn	3.62	4.95	.88	3.15	.52	7.72	.90	22.20	77.60
Borough of Manhattan	3.04	3.47	1.05	2.36	1.71	30.94	.82	52.44	54.63
Borough of Queens	4.11	8.29	1.46	7.87	.85	15.13	1.32	39.85	214.56
Borough of Richmond	1.16	2.39	.93	6.81	.83	7.35	4.15	24.75	68.25
Oakland, Calif.	2.28	5.06	.60	4.49	2.68	17.50	2.99	36.18	66.05
Omaha, Nebr.	2.35	2.10	.92	5.42	.38	8.36	.51	20.13	34.60
Philadelphia, Pa.	1.31	3.26	.86	3.52	.82	13.03	1.81	25.26	29.58
Pittsburgh, Pa.	1.47	3.65	1.08	2.87	.66	9.69	.62	20.25	29.26
Providence, R. I.	3.11	10.43	1.03	3.81	.70	10.37	1.55	31.48	36.98
Rochester, N. Y.	1.58	4.63	2.13	3.38	.83	9.87	.86	23.85	33.26
St. Louis, Mo.	1.52	1.96	.56	1.73	.69	9.48	.09	16.41	21.94
St. Paul, Minn.	.64	4.41	1.26	4.51	1.52	10.44	8.43	32.32	50.42
San Antonio, Tex.	2.50	1.65	1.59	1.70	.57	6.26	2.05	16.47	26.20
San Francisco, Calif.	1.63	1.52	.60	3.92	1.19	15.08	2.46	26.43	47.67
Toledo, Ohio	.33	3.24	2.02	4.12	.40	8.71	.13	19.12	20.42
Washington, D. C.	1.22	4.09	2.12	4.22	1.44	11.73	.27	25.35	71.88

¹ Includes hospitals, asylums, sanitaria, "homes," etc.

² Includes Government buildings, courthouses, city halls, jails, prisons, railroad stations, car barns, bridges, electric-light plants, etc.

³ Includes per capita expenditure for sheds, stables and barns, etc., not included in distribution.

Establishment Funds for the Benefit of Disabled Workers

A STUDY of the costs, benefits paid, and methods of management of establishment disability funds was made in connection with a recent survey by the Bureau of Labor Statistics of the personnel activities carried on by 430 companies engaged in manufacturing or in commercial or transportation enterprises.

Mutual benefit associations are frequently maintained by the employees of an establishment without any assistance from the firm or with only the promise of financial aid by the company if a deficit should occur. These associations have been excluded from the report as being practically independent organizations. On the other hand, the associations which have been included vary greatly as to the extent of the assistance rendered by the firm. In some cases this takes the form of clerical assistance only, while in others the company pays a percentage of the expenses, gives the association a stated sum, or in a few instances maintains the fund and pays all the costs of operation as well. The details asked for in the study of industrial benefit associations were the amount of the firm's contribution, the amount of dues brought to a monthly basis, the amount of the weekly sick and accident benefits and of death benefits, the number of sick, accident, and death benefits paid, and the amount paid out in benefits in the last fiscal year.

Of the 430 establishments visited, 214 reported benefit associations in which some material assistance, either in the operation of the fund or in the payment of benefits, was given by the firm. One hundred and seventy-seven of these establishments, with a total of approximately 993,000 employees, reported on the association membership. In these 177 associations, the membership was 758,067, or 76 per cent of the total number of employees. This may be considered quite a high percentage, as in many cases there is a period varying from 2 weeks to a year after employment before an employee is eligible for membership.

The dues charged vary according to the proportion of the expenses paid by the employer and the amount of the weekly benefits. In nearly half of the associations, however, the dues range between 25 and 75 cents per month, while in 81 cases the dues vary according to wages or amount of benefits, but in general keep within these limits.

Fifty-six associations report that an initiation fee is charged. These fees vary from 25 cents to \$2, the usual fee being \$1, and in addition to the entrance fee many of the associations charge a fee of \$1 or \$2 to cover the cost of the physical examination.

Disability benefits in most cases cover both sickness and accident but usually exclude cases of sickness or injury which entitle the employee to payments under the workmen's compensation laws of the different States. Since most of these laws do not provide for payments for the first week or the first two weeks of disability, the plans frequently provide for payments for the period intervening between the date of injury and the date of the first payment of workmen's compensation benefits. In a few cases, however, employees are paid for disability occurring as a result of employment. The mutual

benefit association of an electric power company, for example, allows one-half pay for each secular day of disability for a period not to exceed one year from the date of the accident.

Tables 1 and 2 show, by industries, the number of associations, the membership, the classified dues and benefits, and the percentage of expenses contributed by the companies.

TABLE 1.—NUMBER AND MEMBERSHIP OF BENEFIT ASSOCIATIONS AND CLASSIFIED DUES, BY INDUSTRY

Industry	Establishments having benefit associations	Establishments reporting membership in benefit associations			Number of associations whose dues per month were—				
		Number	Number of employees	Association members	25 and under 50 cents	50 and under 75 cents	75 cents and under \$1	\$1 and over	Varying sums
				Number	Percent of total employees				
Manufacturing:									
Automobiles	8	8	46,569	42,114	90	5		1	2
Boots and shoes	4	4	22,040	16,227	74	1		1	2
Chemicals, soap, and allied products	6	3	6,290	5,057	80	1	1		3
Clothing and furnishings	9	7	12,075	9,856	82	7	1		1
Electrical supplies	11	9	100,603	66,502	66	3	3		4
Fine machines and instruments	8	7	30,140	21,633	72	3			4
Food products	6	5	3,947	3,243	82	1	3		2
Foundries and machine shops	32	28	102,938	72,505	70	1	7	5	10
Furniture	3	3	3,070	1,029	33	2			1
Gold and silver ware	2	2	3,605	2,955	82			1	
Iron and steel	5	4	34,780	34,371	99	2	1	1	1
Oil refining	2	1	5,978	2,518	42		1		
Ore reduction	3	2	4,620	3,667	79	1		2	
Paper	7	6	7,699	5,858	76		4	1	2
Printing and publishing	5	5	7,725	5,231	68	1		1	3
Rubber	3	3	15,919	11,304	71				1
Slaughtering and meat packing	2	2	48,500	39,956	82			1	1
Textiles	14	13	26,639	19,490	73	2	3	2	4
Miscellaneous	10	7	10,725	8,558	80	4	2		2
Total	140	119	493,862	372,064	75	42	24	6	10
									44
Mining:									
Offices	10	7	11,596	9,872	85	3	2	1	1
	6	2	2,534	1,704	67	1			3
									2
Public utilities:									
Steam railroads	3	3	276,620	233,214	84			1	2
Electric railroads	8	6	44,929	31,972	71		1	1	1
Gas, electricity, and telephone and telegraph	13	13	99,799	63,882	64		2		9
Total	24	22	421,348	329,068	78		3	1	6
									12
Stores	31	25	60,022	42,989	71	4	6		1
Other industries	3	2	3,890	2,370	61	1	1		1
Grand total	214	177	993,252	758,067	76	51	36	8	19
									81

¹ Including 1 establishment in which the dues are under 25 cents.

TABLE 2.—WEEKLY AND DEATH BENEFITS OF ESTABLISHMENT FUNDS, AND PROPORTION OF EXPENSE BORNE BY FIRM, BY INDUSTRY

Industry	Associations reporting benefits per week of—				Associations reporting death benefits of—				Firms paying toward expense of associations—				
	Under \$7	\$7 and under \$10	\$10 and over	Varying sums	Under \$100	\$100 and under \$200	\$200 and under \$300	\$300 and over	Under 50%	50 and under 100%	100%	Flat sums	No fixed sum
Manufacturing:													
Automobiles	2	4	2	—	1	4	—	—	1	1	—	1	6
Boots and shoes	5	—	1	—	—	—	—	—	1	2	—	—	2
Chemicals, soap and allied products	—	1	5	1	2	—	—	—	2	1	1	1	3
Clothing and furnishings	4	1	—	1	3	3	1	—	2	2	2	—	4
Electrical supplies	2	2	5	1	1	5	1	1	3	1	—	—	10
Fine machines and instruments	—	—	—	3	—	—	—	—	2	2	1	—	5
Food products	1	8	1	—	2	2	—	—	2	2	—	—	4
Foundries and machine shops	3	10	9	9	3	12	4	4	4	5	1	3	19
Furniture	1	1	—	1	1	—	—	—	—	1	—	—	2
Gold and silver ware	1	—	—	1	2	—	—	—	—	1	—	—	1
Iron and steel	1	2	1	1	—	2	—	1	1	2	2	—	1
Oil refining	—	—	—	2	—	—	—	2	—	—	1	1	—
Ore reduction	1	—	2	—	—	—	—	1	1	—	—	—	3
Paper	1	—	2	4	1	1	—	—	1	1	2	—	3
Printing and publishing	1	—	1	3	1	—	—	—	1	—	2	—	1
Rubber	1	1	—	1	1	1	—	—	1	—	1	—	2
Slaughtering and meat packing	1	—	—	1	—	—	—	—	2	—	—	—	2
Textiles	1	2	7	2	3	—	—	—	5	3	4	3	2
Miscellaneous	—	4	4	—	2	1	—	—	1	3	1	1	5
Total	16	28	32	47	18	34	11	9	28	15	25	11	73
Mining:	1	1	2	1	1	—	—	1	2	—	3	4	3
Offices:	—	—	1	2	1	—	—	1	2	—	2	3	1
Public utilities:													
Steam railroads	—	—	1	2	—	—	—	—	1	2	—	—	3
Electric railroads	4	3	1	—	—	—	—	1	3	1	1	2	4
Gas, electricity, and telephone and telegraph	—	—	2	9	—	—	—	2	—	4	1	6	3
Total	4	6	12	—	—	—	—	3	4	7	2	8	10
Stores:	1	3	1	26	5	11	2	—	2	—	5	—	21
Other industries	—	3	—	—	—	—	—	—	—	2	—	—	1
Grand total	18	36	45	88	25	45	17	14	39	17	45	17	109

Employees of the large railroad systems are not, in general, subject to the workmen's compensation laws, and these have well-organized relief departments which receive substantial assistance from the companies. Compensation for disability from accidents occurring in the service varies for the different classes of membership and is paid for a period of 52 weeks and at half these rates thereafter, during the continuance of the disability.

Membership and Management of Associations

OF THE companies reporting on this point, 31 stated either that membership was compulsory or that employees were expected to join the association. In the latter case even though there is no definite rule to this effect, strong indirect pressure is brought to bear upon employees to become members. In some plants membership in the association is automatic, that is, employees become members as soon as employed, while in a few cases employees are required to join, if eligible, after a waiting period usually of 2, 3, or 6 months. One

company which does not require employees to join nevertheless gives preference to association members in laying off men, while another company requires employees to join the association if they wish to benefit by the provisions of the group insurance plan.

Among the companies in which there is no pressure exerted upon employees to join the association there is very often a waiting period before becoming eligible. Fifty companies reported the length of time required before eligibility; of these 26 have a waiting period of one month after employment, 20 from two to six months, and 2 one year, while 2 companies required less than one month. In several cases, however, in which membership in the benefit association is optional with the employees they are allowed to join as soon as they are employed. A number of the associations require applicants for membership to be approved either by the membership as a whole, by the officials of the organization, or by the board of directors before they are allowed to become members.

Membership in these societies, especially the larger ones, is frequently conditioned on passing a physical examination, in which case the examination may be given by a physician specially employed for this purpose or the employee may choose one of several designated physicians. In a number of cases the medical department of the plant works in close cooperation with the benefit association and in such cases the plant physicians examine applicants for membership, while in a few instances the medical department is turned over to the benefit association to manage.

In associations not requiring a physical examination it is customary for the prospective member to sign a statement to the effect that so far as he knows he has no disease which would debar him from membership. The penalty for making an untrue or fraudulent statement of this character is the forfeiture of membership in the association.

In the event the physical examination reveals some condition which would ordinarily debar from membership, some associations admit such persons if they receive a majority vote of the board of directors or other officials on the condition that they exempt the association from liability for such ailments or for ailments for which such conditions may be responsible.

The management of the benefit associations is participated in largely by employees except in those cases where the funds are financed entirely by the companies. Many of the associations are managed by the employees alone while some stipulate that one or more of the offices shall be held by company officials. In large plants with many departments it is usual to divide the representation among the different departments so that there is equality of representation in the management of the association.

Length of Membership Required Before Becoming Eligible for Benefits

THE length of time which must elapse before the member is eligible for benefits is reported by 103 of the associations. In 27 of the societies members are entitled to receive benefits as soon as their application for membership is approved, while 40 have a waiting period of four weeks, 5 of two months, 11 of three months, and 2 of six months. In the remaining 18 cases the period varies from 3 to 15 days or is fixed for the first day of the month following admission

to membership. In a few cases, although there is a waiting period for sick benefits, employees are eligible for accident relief at once, and several associations require a longer period of membership before death benefits are paid than for sick and accident benefits.

The length of service required by companies which pay the entire costs of the disability funds varies for the companies reporting from 30 days to 2 years. A metal manufacturing company in the South, which has a large proportion of negro employees, pays benefits to each employee absent on account of sickness who has been in the service of the company 30 days. The payments, which are made for each day lost from work over six working-days, amount to half of the average daily wages for the 30 days preceding the sickness with a stated maximum, and in case of death, unless caused by violence or accident covered by the workmen's compensation act, the company pays \$100.

Another company manufacturing metal products maintains a fund which pays benefits after six months' membership. The benefits cover sickness of both employees and their dependents and include both hospital and medical care. It is necessary for an employee to pass a physical examination before being admitted to membership. The affairs of the association are administered by the usual officers and a board of trustees who are elected annually from the different departments of the plant.

A large oil-refining company maintains a fund from which disability and death benefits are paid after one year's employment. The length of time for which sickness benefits are paid in any one year increases with length of service from a minimum of 6 weeks for 1 year's service to 52 weeks for service of 10 years and over. A large rubber company in the East pays sickness and nonindustrial accident benefits to factory employees who have been in the continuous service of the company for three months or more. Disability benefits vary according to length of service but may not exceed 70 per cent of the average wage of the employee during the preceding three months, the length of time for which benefits are paid varying from 7 to 52 weeks. The death benefit ranges from \$200 for service of three to six months to \$1,000 for service of five years or more.

Time Between Beginning of Disability and Payment of Benefits

THE necessity of guarding against the feigning of sickness or the making of slight illness an excuse to be absent from work is undoubtedly the reason that so large a proportion of the associations do not pay from the beginning of sickness. Many of these associations which provide for a waiting period in cases of sickness pay from the date of injury in accident cases, since the risk of malingering in cases of injury is generally not so great. Of 143 associations reporting on the number of days intervening between the beginning of the disability and the payment of benefits, 92 pay after 6 to 8 days disability, 6 pay from the first, 18 pay after the third day, 6 pay after 4 or 5 days and only one waits as long as 10 days, while a number pay from the first if the disability lasts a stated length of time.

The maximum time for which benefits are paid in any 12 months varies greatly. Twenty associations pay for 10 weeks, 45 for three months, 34 for six months, 9 for one year, and 29 for various frac-

tions of a year, while 7 pay for various periods according to length of service. Eight associations report that benefits are paid for more than one year, in five cases the length of time being unlimited.

Forfeiture of Membership

IN THE majority of the associations membership is forfeited upon leaving the employ of the company, but in a number of cases it may be retained under certain conditions. Only one company reports that membership may be retained unconditionally, but a number allow members to remain in the association for the death benefit and several may remain several months during furlough or suspension, while it is a quite general provision that membership may not be terminated while a person is receiving benefits. One association refunds 50 per cent of the dues to any person leaving the association for any reason whatever if no sick benefits have been paid to date, or, if the sick benefits paid amount to less than 50 per cent of dues, the difference between the benefits paid and that amount is refunded.

The following table shows the sick and accident and death benefits paid during the fiscal year preceding the date of the schedule covering the association. The benefits paid for sickness and accidents are shown together, because few of the firms reported on these items separately.

TABLE 3.—NUMBER OF BENEFIT CASES AND AMOUNT OF BENEFITS PAID BY ASSOCIATIONS, BY INDUSTRY

Industry	Sickness and accident benefits				Death benefits					
	Associations reporting		Number of cases	Total benefits	Associations reporting		Number of cases	Total benefits	Average benefits	
	Number	Membership			Number	Membership				
Manufacturing:										
Boots and shoes	2	13,860	2,982	\$230,143	\$77.18	1	1,000	8	\$693	\$86.53
Chemicals, soap, and allied products	2	2,657	900	12,730	14.14	1	1,935	9	1,200	133.33
Clothing and furnishings	2	1,300	137	2,064	15.07	2	1,397	1	200	200.00
Electrical supplies	9	66,502	9,430	612,276	64.93	9	66,502	383	65,716	171.58
Fine machines and instruments	5	14,525	2,617	56,455	21.57	6	21,321	104	22,475	216.08
Foundries and machine shops	16	52,365	7,595	415,908	54.76	20	60,541	208	42,750	205.53
Gold and silver ware	2	2,955	650	21,489	33.06	1	2,000	12	960	80.00
Iron and steel	3	22,795	2,018	118,343	58.64	2	19,998	142	17,200	121.13
Ore reduction	2	3,667	1,275	25,990	20.38	2	3,667	30	10,810	360.33
Paper	4	5,125	889	35,958	40.45	3	3,239	18	9,300	516.67
Printing and publishing	3	531	120	6,226	51.89					
Rubber	2	7,200	883	36,988	41.89	2	4,704	26	3,900	150.00
Slaughtering and meat packing	2	39,956	6,700	227,479	33.95					
Textiles	5	10,859	3,896	94,536	24.26	3	6,667	29	2,100	72.41
Miscellaneous	4	8,810	633	25,207	39.82	1	1,400	4	600	150.00
Total	63	248,107	40,725	921,791	22.63	53	194,371	974	177,904	182.65
Mining	3	3,926	1,734	50,907	29.36	2	3,237	22	19,386	881.14
Public utilities:										
Steam railroads	3	242,464	81,047	3,019,994	37.26	2	242,464	2,203	1,681,162	763.12
Electric railroads	2	5,110	2,455	43,728	17.81	2	5,993	21	6,050	288.10
Gas, electricity, and telephone and telegraph	10	31,430	6,857	472,351	68.89	8	25,317	148	164,293	1,110.09
Total	15	270,004	90,359	3,536,074	39.13	12	273,774	2,372	1,851,505	780.57
Stores	10	14,420	2,911	73,262	25.17	11	19,424	79	6,950	87.85
Other industries	3	1,400	881	9,700	11.01					
Grand total	94	546,857	136,610	4,591,733	33.54	78	490,806	3,447	2,055,745	596.39

In addition to the cash benefits which are the principal features of the benefit funds, a number of the associations do constructive work in promoting healthful conditions among employees and in furnishing medical and hospital care for them. A power company on the eastern coast provides the services of a health officer who cooperates with the organization in furthering health measures for employees, advises employees, makes inspections in case of sickness, and gives physical examinations to employees. Treatment in case of sickness is obtained, however, by the employees from their own physicians. Other associations provide medical and surgical care, treatment by specialists including X rays and various necessary laboratory tests, and nursing service.

It seems evident from the number of benefit associations and the degree of interest shown by the firms in the operation of the funds that these societies are regarded as of considerable importance to the welfare of the employees and several firms stated they considered the employees' benefit association to be one of the most helpful factors in their plan of industrial relations.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS

The Farm Laborer as a Human Being

ARE we developing on our farms a low class of farm labor? Is the farm hired man one of low moral character whose influence tends to disrupt the unity of the family life and who, if he is a married man, is compelled to maintain a low standard of living as a result of which the educational, religious, and community life all suffer? These questions are suggested by a chapter on farm labor presented as part of a work on Rural Sociology by Carl C. Taylor.¹ This study considers the major problems of rural living and appears to substantiate the opinion expressed in the editor's introduction that "not until our schools and colleges devote more careful attention to the social side of farm living will our rural civilization improve and develop to its proper relationship with city living."

The author recognizes that the farm-labor situation is a real problem, due to a number of reasons—the seasonal character of the work, the inability to secure help when wanted, the superior social and monetary attractions and more favorable working conditions offered by the city, the inefficiency of transient labor due to lack of real interest in the work, the inability to pay sufficient wages to attract competent labor, and many others which serve to complicate the matter and render it difficult of constructive solution. It is estimated that 46 per cent of all demands for hired help on the farm is for short-term laborers, and that 1,500,000 farmers use their hired men only a portion of the year. This emphasizes an important phase of the agricultural labor problem and leads the author to conclude that "unless agricultural production is so organized as to eliminate the demand for these great masses of transient laborers, it is inevitable that we shall continue to have difficulty in supplying our farm-labor needs."

Farm labor is recruited from several sources. The operator and his family constitute the permanent supply, and many farmers are compelled to depend upon this source largely. Transient or seasonal workers, professional groups, including the threshing, shelling, and shredding gangs, exchange laborers, and neighbors are other sources, to which should be added the work of animals and machines. The nonhuman elements, because of their place in lessening the irksomeness of farm work, determine in large measure the ease or difficulty attending the procuring of farm labor. Farm work is essentially manual, with long hours. "The immensity of it during a lifetime is almost incomprehensible." This applies equally to the farm woman, whose household duties apparently are never ended. Hence the introduction of machinery wherever possible, both in the field and in the home, not only reduces the burdens of the operator and his

¹Taylor, Carl C.: *Rural Sociology: A Study of Rural Problems*. New York and London, Harper & Bros., 1926. pp. 55-71.

family, but has a tendency to encourage the enlistment of outside labor and thus contribute to a solution of the labor problem. Not only does the introduction of machinery lessen the irksome character of the work, but it "increases the productivity of man power many fold by saving time and multiplying the directive power of the human element."

In 1830 it took 3 hours and 3 minutes of human labor to produce a bushel of wheat in the United States. In 1894 it required but 10 minutes. Improvements have been made since that time and the human labor is to-day considerably less arduous than it was in 1830, when cradle and flail were the chief tools. In 1855 it required 4 hours and 34 minutes of human labor to produce a bushel of corn. In 1894 it required 41 minutes. It took $35\frac{1}{2}$ hours to produce, harvest, and bale a ton of hay in 1860. In 1894 it took but $11\frac{1}{2}$ hours. In 1841 it took 13.4 minutes to produce a pound of seed cotton. In 1895 it took but 4.7 minutes.

It is stated that in 1922 the amount of time saved in the production of the wheat crop by modern methods as compared with those used in 1830, was 2,713,179,166 hours of work. This is a striking contrast. The quite general use of machinery, in the opinion of the author, has had a very marked social effect on the farm, making possible a shorter day, freeing the farmer from much drudgery, standardizing farm processes and farm work, lightening farm women's work, inspiring the farm boy with creative interest, and removing much of the feeling that farm labor is menial, thus lending some dignity to the farmer's position. However, it must not be overlooked that the use of farm machinery has greatly increased the possibility of farm accidents. The introduction of machinery has, of course, decreased the need for man power and has increased the requirements for efficiency and knowledge, making a demand for a somewhat higher type of farm labor than a half century ago. From this angle the solution of the problem, it is suggested, "must lie in the direction of a farming enterprise which pays its entrepreneurs a better return for efforts and a system of farming and mode of farm life which rather than forbidding is inviting to future generations to live upon and love the farm."

The author suggests several factors which go to make up the farm labor problem, but adds that when remedies are offered to farmers it is difficult to induce them to listen to or adopt plans which vary widely from their habitual practices, even though the plans outlined may be working well elsewhere. Force of circumstances will, it is believed, overcome this difficulty. Farmers must provide "comfortable, neat, and convenient" homes for their married help, who must be assured fairly permanent employment. As high a degree of standardization of hours and tasks as is possible on the farm must be adopted, although it is recognized that standardization is difficult in this industry. If this can be accomplished at times like harvest and threshing it can be done to a much greater degree at other times and in other farm enterprises. Surveys indicate that the average field day of the farm worker is between 9 and 10 hours, to which must be added the time required for "chores." If the total time required exceeds 10 hours the laborer is compelled to do the necessary work about his own home at night and on Sundays and he then feels that he is unduly crowded.

The matter of farm wages, which have materially increased since 1917, presents a problem very difficult of solution. They do not

compare at all favorably with wages in other lines of industry, and while farmers may not be able to meet these scales of city wages and yet make farming pay, "it does not obviate the fact that they will have to do so or leave their farm-labor problem unsolved."

This solution may lie outside of the farmer's present scope of power. If so, we may expect him to develop a scope of power equal to the occasion through the means of controlling the profits of his enterprise by the development of farm-marketing organizations, which will place him in a position to control prices of farm produce; or we may have to wait until the depleted labor supply on the farm makes itself felt in lessened production and consequently better farm prices.

The author cites the fact that there is a tendency toward specialization of farm tasks as well as toward specialized farming, but the development is so slow and the percentage of farm work done by these classes is so small that few are cognizant of the tendency. However, he sees in this trend a possible solution of some of the farmer's problems.

One thing that tends to discourage labor from seeking employment on the farm, according to this report, is that the general conditions under which farm labor is carried on do not compare favorably with standards in other occupations. Organized labor has forced the adoption of better working conditions in many industries, and although "it may be a far cry to expect the agricultural situation to lend itself to these standards in the near future," this is not impossible. The author points out the difficulties that have stood in the way of standardization, as follows:

1. Agriculture is a seasonal occupation to a marked degree, thus rendering standardization difficult.
2. The length of the farm laborer's working day is irregular, so that he can have no set habits of life.
3. Farm labor demands versatility, and it is not easily learned.
4. The work is to a large extent heavy labor.
5. Agriculture is more or less a solitary occupation.
6. The farm laborer retains a large measure of individual initiative and personal responsibility.
7. Farming is not an especially hazardous occupation.
8. Labor organizations have no influence on labor conditions on the farm.
9. The farm labor situation is not subject to industrial upheavals, such as strikes or lockouts.
10. The hired man on the farm has no opportunity to develop a neighborhood or community life of his own.

The author concludes that from a sociological standpoint the farm laborer's position is very unsatisfactory to himself and to the community life in which he is placed, and that his removal is much to be desired. He is pictured as a man too often of low moral character whose presence in the operator's family "many times tends to lower the whole tenor of the home life." If married, his wife and children generally pay the penalty of his social and financial status, for they are often compelled to maintain a rather low standard of living which in turn may have a marked effect upon the community, especially if there are great numbers of such hired men's families. They are seldom an integral part of the institutional life of the community. The apparent fact that the hired-man situation is becoming more and more of a problem is not looked upon with complacency, and "those sections which have developed a thorough going system of hired-men farming constitute the rural slums of the Nation." It is

admitted that the situation would be much more encouraging if these men ultimately became owners of farms, but it appears that a very small percentage of them are of the type to achieve that goal.

If we must have anything like a large hired-man class to maintain American agriculture, if the farm owner finds it necessary to assume all initiative in the conduct of the farm enterprise, and if the members who fail to move on up the agricultural ladder continue to increase, it will be folly to close our eyes to the fact that we are developing a class of tillers of the soil who must continue to live lives most unsatisfactory to themselves and most damaging to the future of rural civilization in America.

It is because of conditions such as these that farm laborers look elsewhere for employment where working standards are such as to render living less monotonous and give the worker a more hopeful outlook for the greatest advancement of himself and his family.

Results of Cooperation of Workers and Management on Railroads

THE "Baltimore & Ohio plan" of union-management cooperation is not a technique, not a formula, but "a state of mind."

The plan—its inception, operation, and actual results—is discussed in two articles in the May, 1927, issue of Industrial Management, the first by Daniel Willard, president of the road under whose direction the plan has been developed, and the second by O. S. Beyer, jr., who, together with William H. Johnston, then president of the International Association of Machinists, first conceived the idea of the plan and has supervised its working.

The scheme was intended (1) to provide for "the utilization of the facilities of the railroad company to the fullest possible extent for the maintenance, rebuilding, and remodeling of locomotives, and car equipment, as well as for the manufacture of supplies and material needed for mechanical and other purposes"; and (2) "to help the stabilization of employment on the Baltimore & Ohio Railroad, thereby producing a situation of satisfied and contented personnel with improved morale, and consequently improvement in the service and production by greater efficiency and better quality of work."

The plan was first suggested to Mr. Willard in the spring of 1922, just before the shopmen's strike. The Baltimore & Ohio Railroad had always recognized the right of its workers to organize into unions, and had negotiated agreements with them on questions of wages, hours, and working conditions, but its position had been one simply of toleration.

At the beginning of Mr. Willard's presidency he was struck by the lack of confidence between men and management. This he found to be due primarily to the fact that "while the officers made agreements with the men and put them in writing, there was not a proper appreciation on the part of the officers that an agreement, having been made, should be lived up to as long as it was an agreement, whether we liked it or not. The result was that agreements were made in conference and then broken the next day by the officers." A definite effort was made from that time to develop a real basis for understanding and mutual trust, and that this had been attended

by some measure of success was attested by the fact that this railroad was chosen by the originators of the plan as the field for its initiation.

The idea was accepted, but the actual putting into practice was delayed by the shopmen's strike. It had, however, taken root so strongly that during the course of the strike the Baltimore & Ohio management had been "careful not to do anything that we could avoid doing that would create a state of mind that would make it impossible after the strike was over."

Inauguration of Plan

AFTER the settlement of the strike the plan was inaugurated in the shop where conditions were most adverse—the repair shop at Pittsburgh. The men employed were of many nationalities and had always been more or less dissatisfied; employment was not always steady; and bitterness had been engendered between the old and new men during the course of the strike.

The experiment was tried out at this shop for nearly a year but the results were unsatisfactory and the shop was closed. Later, when some of the grievances and misunderstandings had been cleared up, it was opened again and this time, with the same shop, the same tools, the same wages, and the same working conditions, the plan was successful. Mr. Willard states: "I tried to analyze it, and it seemed to me that the only thing that had happened was a change in the attitude of the men and of the management; there had been brought about a different state of mind, and, after all, as I look at it, that is about the essence of the whole movement. We have, I believe, succeeded in bringing about a different point of view between our managers and our men."

It was understood that the benefits derived from the new plan were to be shared with the men. The management promised to do all in its power to stabilize employment, provided the men would contribute to raising the morale of the shop. Mr. Beyer states:

To this they readily agreed. And the management, in keeping with its promise, sent a new line of work to Pittsburgh in the form of cars and locomotives to be rebuilt, in order to help stabilize employment. The men appreciated this action, for it gave tangible significance to the cooperative idea. The first locomotive, No. 1003, turned out under this program of "Baltimore & Ohio work in Baltimore & Ohio shops" thus became a monument to cooperation. Here was living evidence of how cooperation was helping the men to steadier jobs and hence greater wage income.

The men "became very active in observing opportunities for improvements, working out practical suggestions and presenting them at their local union meetings and to their representatives for submission to the shop management." A committee system was developed, a committee of the men meeting with representatives of the management, at first irregularly, but later at stated intervals. It was soon decided to keep written records of subjects discussed and action taken.

After the scheme had been in operation for six months it was formally ratified by a convention of the shopmen of the railroad, and its inauguration at each of the 45 shops of the system was provided for by agreement with the railroad in February, 1924.

The plan is now in operation not only in all the shops of the Baltimore & Ohio Railroad, but has also been adopted on three other railroad systems—the Canadian National Railways, the Chicago & North Western Railway Co., and the Chicago, Milwaukee & St. Paul Railway Co.

Essentials of the Plan

UNDER the scheme each shop has its own machinery, and its work is reviewed every three months by a "joint system cooperative committee" which meets also for the purpose of considering and acting upon propositions applicable to the road as a whole. No grievances are considered at either local or joint meetings.

The essentials to the success of the scheme are listed by Mr. Beyer as follows:

1. Full and cordial recognition of the standard labor unions as the properly accredited organizations of the employees.
2. Acceptance by the management of these unions as helpful, necessary, and constructive in the conduct of industry.
3. Development between unions and managements of written agreements governing wages, working conditions, and the prompt and orderly adjustment of disputes.
4. Systematic cooperation between unions and managements for improved service, increased efficiency, and the elimination of waste.
5. Willingness on the part of managements to help the unions solve some of their problems in return for the constructive help rendered by the unions in the solution of some of managements' problems.
6. Stabilization of employment.
7. Measuring and sharing the gains of cooperation.
8. Provision of definite joint union and management machinery to promote and maintain cooperative effort.

The sixth and seventh requirements, namely, stabilization of employment and sharing the gains of cooperation, are reasons why the employees through their unions are warranted whole-heartedly in supporting the cooperative policy. Even should a railroad or industrial plant be run better from either the public's or management's point of view, the union employee's interest in cooperation will not endure if he does not himself get direct and tangible benefits from cooperation. These benefits must take the form, first, of steady employment; second, better working conditions; third, greater yearly wage income; and fourth, better wage rates. Above all else the workers in industry must be assured that management will do everything within its power to stabilize employment; for obviously, if, as a result of greater efficiency they are apt to work themselves out of a job, they will soon lose any enthusiasm they might otherwise have had for cooperation.

Results of the Plan

IN THE shops of the Baltimore & Ohio road some 18,000 suggestions have been brought forward by the men for consideration. Of that number, 15,000 (83 per cent) have been accepted, 500 are still under investigation, 500 are regarded as good but too expensive to adopt, and 1,600 have been rejected as impracticable.

The management makes a special effort to see merit in the suggestions wherever possible, but Mr. Willard points out that rejections do not result in bad feeling:

A lot of the men, 1,600 men, perhaps, had ideas in their minds that they thought were practical; they found the company was not following those ideas and they thought the company was inefficient because it didn't do 1,600 things that they thought ought to be done. After a full discussion they themselves discovered that those 1,600 things were impracticable, and to the extent that that had seemed to reflect inefficiency on the part of the management they were cleaned up, and that led to a better understanding.

About one-third of the suggestions do not benefit the carrier directly but deal with conditions that the men desire to see improved.

The scope of the scheme has been enlarged so that it includes not only the shopmen but also practically all the men in the service of the road.

The plan has, according to Mr. Beyer, resulted in the following benefits to the men:

1. Reduction in grievances—i. e., fairer application of working rules. It is estimated that the number of grievances has been reduced approximately 75 per cent since the inauguration of the cooperative plan. In the year preceding the adoption of the plan there was 1 case of grievance appeal for every 58 men; in 1925, 1 case for every 131 men; and in 1926 the number was still further reduced.

2. Quicker adjustment of grievances.

3. Improvements in apprentice training.

4. Better working conditions.

5. Better tools and methods for doing work.

6. Higher standards of workmanship.

7. Stabilization of employment. From 1924 to 1925 the period of employment of shopmen on the Baltimore & Ohio was increased, on an average, two weeks. This is equivalent to an increase of \$44 per year for each man or $2\frac{1}{4}$ cents per hour. On the Canadian National Railways similar progress has been made, while the Chicago & North Western road, by virtue of the more systematic distribution of work throughout the year plus the policy of doing railroad work in railroad shops, has been able to tide over several declines in traffic without reductions in staff.

8. Financial participation in the gains of cooperation.

Among the advantages accruing to the management are listed the following:

1. Better shop discipline.

2. Reduced labor turnover.

3. Improvements in employee training.

4. Better grade of employees secured.

5. Conservation of materials.

6. Reduction of defects and failures.

7. Better workmanship.

8. Increased output.

9. New business. Some of this is secured by the employees' active efforts, and Mr. Beyer states that on "more than one occasion the employees have, out of their own pockets, paid for advertisements soliciting traffic for their railroads."

10. Better morale.

11. Improved public good will. "It has become more and more evident that the reputation enjoyed by railroads in respect to their ability to get along well with their employees and secure their systematic cooperation for good service has been a big feature in promoting the sympathy and interest of the public toward such railroads."

The general results are summed up by President Willard as having been "eminently satisfactory up to date."

Attitude of Certain American Economists Toward Labor Problems

MANY books have been written by economists in an endeavor to bring about a better understanding of the labor movement and the problems incident thereto, by presenting in a manner carefully outlined and diligently prepared such studies as *Wages and the State*, *Labor Economics*, *The Labor Problem in the United States and Great Britain*, *The Government and Labor*, *American Labor and American Democracy*, *The Causes of Industrial Unrest*, and *Labor Relations in Industry*. A review of these publications, in an effort to show how they are falling short in accomplishing their real purpose because, while emphasizing the desirability of education and its extension among the workers, they do not give sufficient attention to how that shall be brought about, appears in a recent issue of the *Quarterly Journal of Economics*.¹ The article is entitled "Labor problems as treated by American economists," and is by Charles E. Persons, of Boston University.

The chief criticism offered of all these volumes covering familiar aspects of the labor movement is that, while they represent extensive study and are "backed by mature scholarship," they "do not advance us beyond the line of to-day and in general they are satisfied once they have discovered and recorded what has happened up to to-day." The reason for this is ascribed, in part at least, to the unhistorical character of the studies, with little real attempt to disclose the forces that changed medieval to modern industry. The reading public "may rightfully expect from students of labor questions both a clear exposition of their past effects and a diagnosis of their present significance and at least a suggestion as to their future potency." Especially is this historical perspective lacking in the discussion of trade-unionists and trade-unionism, thus creating a wrong impression as to the progress of the trade-union movement. Mr. Persons attempts to correct this by pointing out that, man for man, trade-union membership is to-day far superior to that of the early days, for it commands respect and assumes power which it is fitted to use wisely. There are, of course, exceptions to this, particularly among recently arrived immigrants. A distinction is made between the wage earner and the trade-union:

Wage earners and trade-unions are not interchangeable and identical, like parts in a modern machine. Rather, in the United States, they represent different industrial centuries and widely separated sociological strata. It is fair to expect writers of labor texts to recognize this and to temper their absolutistic pronouncements with exposition of the nature of the wage earner and trade-unionist in the flesh.

The tendency of economists to deal in criticism of employers and of judges and public officials is deplored. The employer oftentimes is bound by competition, it is pointed out, which compels him to a policy of speeding up and overstrain of modern industry. Frank acceptance of this fact is regarded as essential if authors on labor subjects are to be fair in their presentations. It is the supposed conflict between an individualistic philosophy and social action, revealed in these writings, which disturbs the reviewer of these books.

¹ Quarterly Journal of Economics, Cambridge, Mass., May, 1927, pp. 487-519: "Labor problems as treated by American economists," by Charles E. Persons.

Regret it as we may, social organization has replaced individualistic self-sufficiency, and an individualistic philosophy is as obsolete for most workers as dependence on a private well for a water supply. Recognition of this truth might be hastened by intensified historical study and analysis. Should it not be a foundation stone in any twentieth-century labor text?

A failure to grapple with the question of the right relationship between our trade-unions and our democracy is given as the most fundamental lack in books on labor questions. The Constitution of the United States was written before labor problems as they exist to-day were known, and it "would be more worthy of our great democracy and productive of an immeasurably greater result if we gathered in a new constitutional convention and faced squarely the problem of formulating a set of principles which would furnish a firm foundation for legislation and adjudication in labor problems." Some writers apparently have made an effort to advance that cause, but disappointment is expressed because the scholars who might be expected to formulate the premises on which judgments should be based have not met the issue. This, it is suggested, forces labor to be the innovator, but labor "lacks education, trained leadership, and powerful organs which command public attention." Its opponents, on the other hand, "are well served in all these respects," and are protected by "massive bulwarks of established institutions and accepted traditions."

Is it not fair to expect that twentieth-century text books on labor will point the way to the next forward step and analyze the situation so definitely that underlying principles will become evident? It is a reproach if they are wise only after the event. The books are not worth while if they shift the burdens of scholarship to sorely burdened and ill-equipped labor.

If the shop committee plans are to succeed, if the unions are to be wisely officered and intelligently directed, if, indeed, the democracy is to grapple successfully with the increasingly intricate and difficult problems which vex it, we must raise the average of intelligence and wisdom of the trade-union member and of the citizen. It has been recently suggested that what over-prosperous America most greatly needs is "a big job." Here is one ready to its hand. It may undertake the herculean labor of banishing illiteracy and ignorance; of alleviating the inevitable monotony of labor by fitting the laborers to live, and live more abundantly, outside the workshop. It may so train its workers that they will no longer be mute and helpless victims of unrest. Instead, they will present their case convincingly at the bar of an intelligent public opinion, and the scholar will record the judgment, as always, with approval. We might even be allowed to hope that economists, philosophers, and statesmen in that newer day will formulate the "underlying set of principles" which will guide them to a favorable judgment before the event."

The Italian "Labor Charter"¹

IN JANUARY, 1927, the Fascist Grand Council approved a resolution for the establishment of a "labor charter," the preparation of which was to be intrusted to Mr. Mussolini as Minister of Corporations. This charter, of which the following is the official text, was issued on April 21, 1927, the anniversary of Rome's foundation, which is Labor Day in Italy:

The corporate State and its organizations

SECTION 1. The Italian nation is an organism with specific ends, a separate life, and methods of action superior to those of the individuals or groups which

¹ International Labor Office, Industrial and Labor Information, Geneva, May 9 (pp. 193-197) and May 23, 1927 (pp. 321, 322).

compose it. It constitutes a moral, political, and economic unity the complete realization of which is found in the Fascist State.

SEC. 2. Labor in all its forms, intellectual, technical and manual, is a social duty. On this count, and on this count alone, it is protected by the State. Production as a whole must be regarded as a unit from the national point of view. Its objectives are all of the same kind, and may be summarized as the well-being of producers and the development of the national power.

SEC. 3. Occupational or trade-union organization is free, but only trade-unions which are legally recognized and subject to State control are entitled legally to represent all the categories of employers or workers for whom they are constituted, to protect their interests vis-à-vis the State or other occupational associations, to conclude collective labor agreements which are compulsory for all persons belonging to their category, to impose contributions on their members, and on their behalf to exercise delegated powers in the public interest.

SEC. 4. The concrete expression of solidarity between the various factors in production is the collective agreement, through the conciliation of the opposing interests of employers and workers, and their subordination to the higher interests of production.

SEC. 5. The industrial courts ("magistracy of labor") constitute the organization through which the State intervenes to settle labor disputes, whether in connection with the observance of agreements or other existing provisions, or in connection with the determination of new conditions of labor.

SEC. 6. Legally recognized occupational associations secure juridical equality between employers and workers, and maintain and seek to improve the régime of discipline in production and labor. As representatives of the united interests of production, the corporations themselves may issue binding regulations governing the discipline of labor relations and the coordination of production, whenever they have received a mandate from the affiliated associations. The corporations are the unifying organization of the forces of production, and fully represent its interests. In virtue of this plenary representation, the corporations are legally recognized as State organizations, since the interests of production are national interests.

SEC. 7. The corporate State considers private enterprise in the sphere of production as being the most effective and useful method of securing the interests of the nation. Since private organization of production is a work of national importance, the head of an undertaking is responsible to the State for the development of production. From the collaboration between the forces of production is derived a reciprocity of rights and duties. The worker, whether a technician, a salaried employee, or a manual laborer, collaborates actively in the work of an economic undertaking, and the direction of the undertaking devolves upon the employer, who is responsible for it.

SEC. 8. Occupational associations of employers are required by all means in their power to increase and improve the production of the goods which they produce, and to reduce the cost thereof. The representatives of persons who carry on a liberal profession or an art, and associations of employees in public undertakings, are required to combine in protecting the interests of art, science and letters, in the improvement of production, and in the achievement of the moral objects of the corporate system.

SEC. 9. State intervention in economic production takes place only when private enterprise is wanting or inadequate, or when the political interests of the State are at stake. Such intervention may take the form of control, encouragement, or direct administration.

SEC. 10. In the event of collective labor disputes, legal action can not take place unless the corporate organization has first made attempts at conciliation. In individual disputes concerning the interpretation and enforcement of collective labor agreements, occupational associations are allowed to proffer their good offices for conciliation. Competence in such disputes belongs to the ordinary courts, with the assistance of assessors appointed by the occupational associations concerned.

Collective labor agreement and labor guarantees

SEC. 11. Occupational associations are compelled to regulate labor relations between the categories of employers and workers whom they represent, by means of the collective agreement. The collective labor agreement is concluded between associations of the first degree, under the direction and control of the central organizations; but the association of the first degree may be replaced by the association of the higher degree in the cases provided for in the laws and statutes.

All collective agreements must, under pain of being null and void, contain precise rules concerning disciplinary relations, the period of probation, rates of wages and the methods of paying wages, and hours of work.

DETERMINATION OF FAIR WAGES

SEC. 12. Trade-union action, the conciliation work of the corporate organizations and the awards of the labor courts all constitute guaranties that wages will correspond to the normal requirements of life, to the possibilities of production, and to the output of labor. The work of determining the wage is carried out without reference to any general rules and is intrusted to the parties to the collective agreement.

SEC. 13. Data established by the public departments, by the Central Statistical Institute and by the legally recognized occupational associations, concerning conditions of production and of labor, the situation of the money market and variations in the standard of existence of the workers will, when coordinated and collated by the Ministry of Corporations, supply the criteria for the reconciliation of the interests of the various categories and of the various classes among themselves, and also of their interests in comparison with the higher interests of production.

PIECE RATES

SEC. 14. Payment should be made in the manner which best meets the needs of the worker and of the undertaking. When payment is calculated on a piece basis and is made for periods longer than a fortnight, accounts by the fortnight or the week are required.

Night work not carried out in regular shifts is paid for at a higher rate than day work. When payment for labor is made on a piece basis, the piece rates must be determined in such a way that the hard worker with a normal capacity for work receives a minimum remuneration higher than the basic wage.

THE WEEKLY REST

SEC. 15. The worker is entitled to a weekly rest coinciding with Sunday. Collective agreements will enforce this principle, taking account of existing legislation and of the technical requirements of the undertaking and, within the limits of these requirements, will take steps to secure that civil and religious holidays are respected in accordance with local tradition. Hours of work must be fully and strictly observed by the worker.

PAID HOLIDAYS

SEC. 16. After one year's uninterrupted service a worker in a continuous process undertaking is entitled to an annual holiday with pay.

DISMISSAL INDEMNITIES

SEC. 17. In continuous process undertakings the worker is entitled, in the event of his dismissal through no fault of his own, to an indemnity proportionate to his years of service. Such indemnity is also due in the event of the worker's death.

SEC. 18. In continuous process undertakings the transfer of the undertaking does not cancel the labor agreement, and the staff of such an undertaking preserve their rights as against the new proprietor. Similarly, sickness on the part of the worker, which does not exceed a certain period, does not cancel the labor agreement. A worker may not be dismissed because he is called up for service in the army or in the militia.

SEC. 19. Infringement of discipline and acts committed by workers calculated to disturb the normal working of the undertaking are punished, according to the gravity of the delict, by fines, suspension from work, and, in serious cases, immediate dismissal without an indemnity. The cases in which the employer may inflict fines, suspend from work, or dismiss on the spot without indemnity will be specified.

PROBATION PERIODS

SEC. 20. When a worker is engaged, he must undergo a period of probation, during which period the agreement may be canceled on either side, provided only that work actually done during the period in question must be paid for.

SEC. 21. Collective labor agreements are extended, both as regards their benefits and the discipline which they impose, to home workers also. Special rules will be laid down by the State for securing conditions of cleanliness and hygiene for home work.

Employment exchanges

SEC. 22. The State is the only body which can ascertain and control the state of employment and unemployment among the workers, which is the final index of conditions of production and of labor.

PREFERENTIAL CLAUSES

SEC. 23. The joint employment office is under the control of the corporate organizations. Employers are compelled to take workers registered with these offices, and are entitled to choose them from a list of persons registered, giving the preference to members of the party, to Fascist trade-unionists, and also to seniority of registration.

SEC. 24. Workers' occupational associations are compelled to make a certain choice among the workers, with the object of improving continuously their technical capacity and their moral worth.

SEC. 25. The corporate organizations see to the observance of legislation concerning the prevention of accidents, and labor regulations on the part of individuals affiliated to the federated associations.

Welfare, social assistance, and education

SEC. 26. Welfare is an important manifestation of the principle of collaboration. The employer and the worker must contribute proportionately to welfare charges. The State, through the medium of the corporate organizations and the occupational associations, will, so far as possible, coordinate and standardize the system and the various welfare institutions.

SEC. 27. The Fascist State proposes: (1) to perfect the system of accident insurance; (2) to improve and extend maternity insurance; (3) to set up a system of insurance against occupational diseases and tuberculosis, as a first step towards a general system of insurance against all diseases; (4) to perfect the system of insurance against involuntary unemployment; (5) to adopt a special insurance system for endowing young workers.

SEC. 28. It is for the workers' associations to protect the interests of their members in administrative and judicial matters connected with accident insurance and social insurance in general. In collective agreements, whenever technically possible, mutual benefit funds for sickness will be set up, fed by contributions from employers and workers, and administered by representatives of both, under the control of the corporate organizations.

SEC. 29. It is both the right and the duty of the occupational associations to assist the persons they represent, whether members or nonmembers. The occupational associations must exercise their functions of assistance directly through the medium of their own organizations, and may not delegate them to other bodies or institutions, except for reasons of general interest which go beyond the scope of the interests of any single category of producers.

SEC. 30. Education and instruction, in particular, the technical instruction of the persons they represent, whether members or nonmembers, is one of the chief duties of the occupational associations. They must collaborate in the work of the various National Workers' Spare Time Institutes, and in other educational schemes.

In the same issue of the *Gazetta Ufficiale* (quoted in Industrial and Labor Information) in which the full text of the "labor charter" was carried the statement given below was also published:

On the occasion of the promulgation of this charter, one of the basic documents of the Fascist revolution, inasmuch as it lays down the rights and duties of all forces of production [the Grand Council] seizes the opportunity to bring it to the attention of the whole Italian people, and of all those throughout the world who are concerned with the social problems of our time; because by this act of will and faith, the Black Shirts show that the forces of production may be harmonized, and that their harmony is the sine qua non of their fertility.

Fascism thus demonstrates that, as opposed to the absurd and ruinous socialist demagogies which are everywhere bankrupt, discredited and impotent, its effect

is to raise the moral and material standard of the most numerous classes of society, which have consciously taken their place in the national existence, both in theory and in fact.

In connection with its approval of the "charter" the following resolution was passed by the Fascist Grand Council:

The Grand Council expresses the wish that the Government should, on the initiative of its head, the Minister of Corporations, and in agreement with the other ministers concerned, prepare the necessary legislative measures for the promulgation of the principles affirmed to-day, the object of which is to develop Fascist legislation on the legal disciplining of collective labor relations and on the corporate organization of the State; and decides that, in the present year, there should be concluded, either in a new or in a modified form, collective agreements on the basis of the clauses contained in the "charter," and that the duration of the agreements should be such as to allow undertakings the possibility of a sufficient lapse of time to adapt themselves to the new financial situation and to the difficulties of international competition.

Mr. Mussolini declared that the charter "may be transformed into law as regards its various parts" but that the document itself has even now "an executive value." He also gave expression to his assurance that the provisions with reference to employment exchanges, collective labor agreements, and activities in connection with social welfare would be carried into practice in the near future.

Annual Convention of the Association of Governmental Labor Officials

THE fourteenth annual convention of the Association of Governmental Labor Officials of the United States and Canada was held May 31 to June 3, inclusive, at the Alexander Hamilton Hotel, Paterson, N. J.

At the opening dinner held the evening of May 31, the labor bureaus and industrial commissions of 16 States and Provinces were represented, as well as the Federal departments of labor of the United States and Canada. In addition there was a large representation from the New Jersey Department of Labor and from the Employers' Association of New Jersey, chamber of commerce, and business interests. The association was welcomed by a representative of the governor, the mayor, president of the chamber of commerce, and then listened to two addresses delivered by James Wilson, seventh vice president of the American Federation of Labor, and John Fergusson, vice president of the Employers' Association of New Jersey.

The formal sessions of the convention opened Wednesday, June 1, and continued through Friday, June 3. Questions relating to employment methods, machinery accidents, labor laws as a means of preventing diseases of occupation, mine safety work, and problems connected with general inspection work, certification matters, and questions relating to the employment of children, and home work were discussed.

A feature of the convention was a visit to the department building of the New Jersey Department of Labor, Jersey City. After the delegates to the convention had visited the industrial museum of safety, the rehabilitation clinic, the compensation court room, and the public employment offices of the department, an address on the

activities of the department was delivered by Dr. Andrew F. McBride, commissioner of the department of labor of New Jersey. Later the delegates made an inspection of the factory of the Singer Sewing Machine Co.

The following officers were elected: H. M. Stanley, commissioner, department of commerce and labor, Atlanta, Ga., president; Dr. Andrew F. McBride, commissioner, department of labor, Trenton, N. J., first vice president; Maud Swett, field director, woman and child labor, industrial commission, Milwaukee, Wis., second vice president; James H. H. Ballantyne, deputy minister, department of labor, Toronto, Ontario, third vice president; W. A. Rooksberry, commissioner, bureau of labor and statistics, Little Rock, Ark., fourth vice president; Charlotte Carr, director, bureau of women and children, Harrisburg, Pa., fifth vice president; Louise E. Schutz, superintendent, division of women and children, industrial commission, St. Paul, Minn., secretary-treasurer.

The association will hold its next meeting in New Orleans, La., some time after May 15, 1928.

PRODUCTIVITY OF LABOR AND INDUSTRY

Labor's Conference on the Elimination of Waste¹

THE increased interest being taken by the organized labor movement in the problems of industry is evidenced by the calling of labor's first conference on the elimination of waste. The conference was held at the Philadelphia Labor Institute, April 9 and 10, 1927, and was attended by more than 200 delegates, including not only representatives of labor unions, but economists, educationists, and industrial engineers.

Union Efforts to Eliminate Industrial Waste

THE International Printing Pressmen and Assistants Union has for some time been giving particular attention to the problems of the printing industry. It has directed its efforts toward the technical advancement of its members and the industry in several ways. It has established a school both for apprentices and for postgraduate courses in presswork and a school in New York City for newspaper pressmen. It also has an "engineering service" which is free to all unionized newspapers in the United States. Each newspaper furnishes two copies of its edition each day, and these are studied by printer experts with a view to improving them from the printing standpoint. Suggestions are made to the newspaper in question and if necessary an expert is sent to the plant to oversee the changes necessary.

The question of waste in the manufacture of full-fashioned hosiery was dealt with by the president of the local hosiery workers' union. Waste in that industry can occur in three ways:

(1) Through the use of poor silk, a problem that must be solved by the manufacturer.

(2) Through lack of skill on the part of the machine fixers. The knitting machine on which silk stockings are made is characterized as being "probably the most delicate and complicated piece of mechanism now in use in any type of industrial establishment. The machine has 50,000 parts and all of them must be in perfect order or the stockings will have defects and will lack the proper appearance. A sudden change in the atmosphere may so affect these machines as to produce, temporarily at least, spoiled work.

¹ Journal of Electrical Workers and Operators, May, 1927, and American Federationist, June, 1927, pp. 668-733.

(3) Through the carelessness, lack of attention or lack of training of the operative, and, most of all, through "the disturbed mental condition of the man or woman in the shop" which results from an unsatisfactory relation between the employer and his employees. The union recognizes its joint responsibility with the employer in maintaining satisfactory relations in the industry. It is realizing the losses caused by strikes and lost time, and pointing out to its members that "the union must win increased benefits for the workers by making the services our members render to the industry so invaluable that the industry will be bound to recognize the need for encouraging this improved service." Definite improvement in production in shop after shop is claimed to have resulted from the union's efforts.

The losses to industry through such causes as industrial accidents, strikes and lockouts, and the present system of distribution were pointed out by Mr. Mathew Woll.

Unemployment as a Source of Waste

THE change that has taken place in the attitude of both men and management as regards industrial waste was discussed by Mr. William Green, president of the American Federation of Labor. Formerly labor's suggestions were resented, and such questions as duplication of effort, increased efficiency, and productivity were considered as being outside labor's province. But, although management assumed full responsibility for industrial success or failure, the losses of industry through any mismanagement fell heavily upon the workers, and demands for the broadening of the field of collective bargaining became more insistent and began to secure compliance.

The desire of labor to interest itself in the problem of waste is based upon its wish to secure higher wages and to enjoy improved conditions of employment. So long as industry is only partially efficient, labor believes that the wages paid can be substantially increased through an increase in industrial efficiency and the elimination of waste. By the same process the cost of manufactured articles to the public can be materially reduced.

Mr. Morris L. Cooke, industrial engineer and referee in the cloak industry of Cleveland, pointed out that "unemployment is the most important single source of waste." Unemployment is largely preventable and regularity of the provision of work has come to be considered as one of the best tests of the ability of the management.

Increased production * * * involves more than simply getting the employees to work more intently or to turn out more units per hour. Every increase in the expertness of the workers, and every improvement in the morale of the working force, calls for a betterment in the management. To manufacture effectively, the working force must be backed up by an effective sales force and a socially minded sales policy.

What we all want, employers and employees alike, is the substance of continuous employment rather than protection against unemployment.

Elimination of Waste Through Scientific Management

SEVERAL speakers emphasized the part of scientific management in removing the causes of waste in industry. The first of these speakers, Mr. Fred J. Miller, consulting engineer, asserted that improved methods of management, by lessening the labor costs in production through the introduction of labor-saving machinery and in

other ways, tended directly to lessen the employer's resistance to paying higher wages. Prof. Irving Fisher urged the unions not only to cooperate with the employers in introducing scientific management but to take the lead in inducing the employers to introduce scientific methods, on the ground which labor is thereby serving its own interests. For "anything that lowers cost of production tends either to raise money wages or to lower prices, or both." He urged the unions to "let the employer have a free hand in introducing improvements, and get the profits, the lure of which induced him to save waste." But labor should not be made to bear the cost of the change.

[The employer] should be induced or, if need be, compelled through trade-unions, or even by law, to see to it that any workman whose job is lost through improvements in production shall be provided, at the expense of the employer who profits by the change, with every reasonable opportunity to get another equally good job.

The success of scientific management, in the opinion of Mr. Geoffrey Brown, consulting engineer, lies in recognizing that the cooperation of the men is necessary, and he urged that in every plant a job analysis committee should be formed on which the workers should have their representatives. The job that makes demands upon the workman's intelligence is the one that brings satisfaction to the doer. Job analysis calls for the greatest exercise of intelligence and should therefore appeal to the men.

The value of job analysis was also stressed by Mr. Sanford E. Thompson, industrial engineer. He was of the opinion that standards of production are necessary in order that labor may receive fair remuneration, and these can be determined only by job analysis.

Greater standardization of equipment and greater use of mechanical power as a means of lowering production costs were urged by Robert T. Kent, engineer in charge of Sing Sing and other prisons.

The American workman has at his disposal more than twice the horsepower that the workman of any other nation has. Standardization of product and of equipment enables a man to do more work and better work in a given time than he can do in the same time with unstandardized products or tools. That means that the work is produced at less expense and that we are * * * increasing the profits to be divided among the producers.

The views presented by these engineers were criticised in three particulars by the representatives of labor.

One criticism was that the workers are not always given an incentive in eliminating waste, through being allowed a share in the gains therefrom. Also, they want more than wages; they want "culture and a chance for self-development." The piecework method of compensation was attacked as being unfair and autocratic unless the workers have a voice in determining the piece rates; also as tending to break up the group spirit of the shop "by arousing jealousies and rivalries, and by placing undue emphasis upon the individual."

Scientific Management in Europe

THE extent to which scientific management has been adopted in European countries is reviewed briefly in a memorandum¹ prepared for the use of the International Economic Conference held at Geneva in May, 1927.

Scientific management is the science "which studies the relations between the different factors in production, and especially those between the human and the mechanical factors. Its object is to obtain, by the rational utilization of these various factors, the optimum output." It may be analyzed into its various aspects, as follows:

Technique

Production planning; choice of site and construction of buildings; arrangement of workshops, choice and layout of equipment and raw materials, organization and maintenance of storerooms; transport within the factory; supply of materials and tools.

Research and planning offices; routing, use of card indexes, classification, use of statistics and charts.

Accountancy, costing; purchasing and sales departments; advertising.

Psycho-physiology of the individual

Time study (by stop watch); motion study.

Vocational selection; vocational education; study of the functions of management.

Fatigue study: Attention, monotony, absent-mindedness.

Study of optimum material, working conditions: Improvement of equipment, lighting, heating, ventilation, general workshop hygiene, as affecting the human factor.

Occupational diseases; safety.

Welfare (housing, transport, cooperative restaurants).

Collective psychology

Study of the different systems of wages payment, profit sharing and copartnership.

Industrial relations (study of the various theories and their practical application).

Personnel department, workers' representation.

Study of methods of collaboration inside and outside the factory, with a view to improving output.

General organization of production

Study of methods for stabilizing production and employment.

Standardization (normalization, unification, simplification).

Elimination of waste.

Horizontal and vertical combination: National and international industrial agreements, cartels, trusts, syndicates; action by governments, by public services, by employers' and workers' organizations.

Specialization; mass production and distribution; study of the general problems of the distribution of raw materials, the organization of markets, transport power, and labor supply.

It is stated that since the war scientific management, modified to meet the circumstances, has made rapid progress in Europe, and there is an increasing tendency to apply its methods to general economic problems. Psycho-physiological research is especially advanced in Germany and Great Britain, although in the latter

¹ League of Nations. Economic and Financial Section. C. E. I. No. 13: Scientific management in Europe. Geneva, 1927

country, in spite of the results obtained, labor is still hostile and employers are still indifferent.

In Russia, Germany, and Czechoslovakia "scientific management has become the guiding principle of the national economic system."

Public opinion in the principal European countries is becoming more and more inclined to accept the new methods. The employers, who some years ago tended to consider them from the narrow standpoint of their own undertaking, now recognize the importance of their effects on the economic conditions of the whole country; the approval of the technicians has universally been won; while the workers, who at first were taken by surprise, and frequently hostile, now recognize the advantages they may derive from a properly conducted application of scientific management methods.

In Czechoslovakia, Germany, Great Britain, Poland, and Russia, research in this science is actively supported by the Government. National, though unofficial, bodies have been formed in Austria, Belgium, Italy, and Netherlands. In Finland efficiency methods have up to the present been confined to the administration of the railways and to agriculture. While research has made rapid strides in France, practical application to industry has lagged, and labor is still opposed to its introduction. Germany holds the leading place in the movement, and even the workers' organizations in that country are interested. A national committee to study scientific management is in process of formation in Spain. The movement is largely in the hands of the employers' organizations in Sweden and Switzerland.

The International Committee for Scientific Organization was formed in 1925.

The report expresses the view that "if scientific management tends to economize and improve the distribution of human effort, if, by thus securing the putting of the right man in the right place, it causes the reduction of fatigue, the improvement of health, and an increased feeling of professional dignity, and if, by establishing new systems of wage payment, it tends to satisfy the claims of justice, its universal social value needs no demonstration."

MINIMUM WAGE

Effect of Minimum Wage Regulations in California

THE California Industrial Welfare Commission's orders regulate the employment of about 160,000 women and children in that State. Pay-roll reports and data secured from inspection and investigation concerning the employment of more than 130,000 women are filed in the department's offices. This immense amount of information, according to the fifth report of the commission, covering the period from July 1, 1922, to June 30, 1926, includes evidence against the claims of opponents of minimum wage legislation. These claim that under such legislation (1) the minimum wage tends to become the maximum wage; (2) apprentices or lower-paid workers will be dropped on reaching their minimum wage and will be replaced by lower-paid workers; (3) infirm or substandard workers who are allowed to receive a lesser wage will be substituted for normal workers; (4) the highest-paid workers will have their wages reduced to equalize the additional wages paid to the lower-paid workers; and (5) industry will be throttled and new industries will not develop in the State.

These claims the report answers in order, to the following effect:

1. A study of recent certified pay-roll reports of woman workers in the laundry, mercantile, and manufacturing industries on file in the office of the commission discloses an increasing per cent of women whose actual weekly earnings are more than the minimum weekly wage of \$16, the percentages for the years listed, based on the pay-roll reports, being as follows:

	Women on pay- roll report	Per cent receiving \$17 or more per week
1920	55,922	46.4
1922	58,734	54.3
1923	68,728	58.6
1924	71,664	62.7
1925	76,566	63.2

2. The following statement based on pay-roll data, shows a decreasing per cent of learners who receive wage rates under \$16 a week. It will be noted that the year 1925 is an exception, with a slight increase of 0.4 per cent over the preceding year, due to the large addition to the number of women employed. At the same time the number of women employed at \$16 and over increased, indicating that apprentices are not discharged "but absorbed, normally into the great group of higher-paid workers."

	Women on pay- roll report	Per cent re- ceiving less than \$16 a week
1920	50,704	14.3
1922	52,326	8.3
1923	61,007	7.3
1924	63,966	5.4
1925	68,228	5.8

3. The evidence also indicates that there has been little substitution of infirm and elderly women who are allowed to work for less than the rate fixed for minimum wage workers. Substandard employees must be licensed and licenses are given only after the commission finds that the applicants are unable to earn the minimum rate.

Employers may make application for permits for substandard workers and no legitimate requests are refused. The records show, however, that there were only 327 of these licenses issued in 1923, 1924, and 1925, and 648 renewals. At the close of 1925 there were only 335 licenses in effect in the various industries included under the commission's orders.

4. Referring to the argument of some associations of employers and of a certain group of women that protective labor legislation is a disadvantage to women and that the establishment of a legal minimum wage will be injurious to higher-paid women, the commission states that the pay-roll reports filed with that body for woman workers in the California laundry, mercantile, and manufacturing industries show that in 1919 when the minimum wage was \$10, only 446 women were receiving actual earnings of \$30 or more a week. In 1925, however, with a minimum wage of \$16, 6,084 women in these industries were receiving actual earnings of \$30 or more a week.

5. In the above-mentioned industries the following increases were shown in the number of establishments reporting woman workers:

	Number of establishments.
1919	3, 077
1920	3, 244
1922	4, 350
1923	5, 041
1924	5, 174
1925	5, 597

This record of vigorous growth the commission offers as a proof that industry has "not been throttled in California."

INDUSTRIAL ACCIDENTS AND HYGIENE

Health of Working Boys in New York City

A STUDY¹ of the relation of the health and environmental conditions, among a group of 2,000 working boys in New York City, to the development of tuberculosis has been made under the direction of Dr. Iago Galdston, secretary of the New York Tuberculosis and Health Association.

It is well recognized that high morbidity and mortality rates from tuberculosis in any particular group are generally associated with a high general death rate and with a relatively low-grade physical condition, and in studying this particular adolescent group, therefore, the purpose was to find out the number and types of physical and functional deformities of the individuals and evaluate these on their possible causative or contributory relation to tuberculosis. The group of boys selected for study was chosen from the East Side Continuation School in New York City and comprised boys who were past 14 but under 17 years of age and who had not completed the eighth grade in school. These boys were all employed but were required to attend school one morning or afternoon each week. The cooperation of the boys was enlisted through talks explaining the relation of health to industry and the welfare of the worker and by posters, health slogans, and pictures which were placed in the school building.

Each boy was measured and weighed and if the weight in relation to height and age suggested malnutrition a red mark was placed on his record card indicating to the examining physician that the boy should be given additional attention. In the physical examination a definite diagnosis was requested on each given condition and if the diagnosis was not established on the first examination, the boy was reexamined until his condition was defined and agreed upon, conferences being held in doubtful cases by the examining staff. For each boy a summary of the outstanding points was made and of the recommendations of the physician for follow-up work, as in addition to securing the facts relative to the physical condition of the boys it was the aim to correct the defects found so far as possible. Arrangements were made with various hospitals providing for special attention for the boys sent to them for confirmatory diagnosis and treatment. The principal and teachers cooperated in the effort to secure treatment for the boys, and before the completion of the study a report was received from the teachers on the disposition of each boy's case, although for various reasons not all of the boys received treatment.

The examinations covered a period of eleven weeks, five 2-hour sessions being held five days in each week. Four physicians were in

¹"The health of the working boy. A survey of the health of 2,000 working boys in the East Side Continuation School," by Iago Galdston, M. D., New York City. This article is a summary of the original study loaned to the bureau in manuscript form.

attendance, and one assistant was present to take the histories. There was a total of 2,076 boys examined and 433 reexaminations were made, but the statistical data have been calculated on a basis of 2,000 examinations. In addition, industrial histories were taken in 220 cases and 141 of these boys were given vocational guidance. This group of 220 boys was given special consideration both because of the serious physical handicaps among the members and because the examining physician believed, in numerous cases, that the boy's work affected his health.

The boys examined were predominantly foreign in extraction, 27 nationalities being represented. The largest groups were Italians, Russians, Americans, Austrians, and Poles, the Americans, however, representing but 10.05 per cent of the total number.

Of the 2,000 boys, 264 were 15 years of age; 978, 16 years; and 758, 17 years; and the average height ranged from 5 feet 4 inches to 5 feet 7 inches. The fact that a large number of the boys were excessively tall for their age was considered to account for a good many leaving school and entering industry, as such boys frequently feel embarrassed by their size and do not like to remain in school.

Judged by the weight in relation to the height and by inspection of the individuals' mucous membranes, muscle tone, posture, and general appearance, it was found that more than a third of the boys were in the undernourished class, 661 being found from 6 to 18 per cent and over underweight, while 54 were considerably overweight.

Five hundred and forty boys, or 27 per cent, were found to have impaired vision and 60 boys were found to be suffering from various diseases of the eye. There were 67 cases of diseases of the ear, including 4 cases of impaired hearing. About 45 per cent of the boys were found to have decayed teeth which were in need of repair work. Heart defects of various kinds were present in 154 cases. The tonsils were very carefully examined and more than half of the boys were found to have diseased tonsils, the majority of which were considered to require surgical treatment. Nasal obstructions and infections of the upper respiratory tract were present in 187 cases, and there were many cases of skin disease, glandular disease, and orthopedic defects of various kinds.

Special attention was given to the condition of the lungs and suspicious cases were sent to a tuberculosis clinic for X rays and special tests. Six cases of active tuberculosis were discovered, 31 boys were listed as tuberculosis suspects, and 10 had chronic, inactive tuberculosis.

Of the 2,000 boys, only 225 were found to be normal while 620 had one defect, 645 had two, 374 had three, 135 had from four to six defects, and 1 had ten.

Industrial histories were taken of 220 boys who were more or less seriously handicapped by their physical condition. The 220 boys worked at 55 different occupations, most of these being unskilled, and less than half of them were receiving any training for advancement. The hours of work per week varied from 40 to 70 hours and over, but for the majority of the boys the working week was 48 hours or under. The average weekly earnings of the group were \$11.50, but it is not possible on this basis to estimate the yearly income as the average boy does not hold his job very long and between jobs there may be long periods of idleness.

In interpreting the findings of the study, attention is drawn to the fact that, under modern conditions of living, few persons escape invasion by the tubercle bacillus and that by the fourteenth year the percentage of unaffected individuals is very small. The reason, however, that so large a proportion of the population fail to develop the disease is found in the development of an acquired immunity and in the general resistance of the individual. The natural resistance of the body is increased by maintaining the best anatomic and physiologic condition possible, while, conversely, anything that lowers the health and vitality of the individual weakens the resistance. The sickness curve of tuberculosis runs very closely with overstrain, exposure, unhygienic living conditions, and improper food, and it is of the greatest importance to increase the resistance of the individual during the adolescent period, when the physical and psychologic instability are greatest and the reserve margin is probably at its lowest point.

The extent of malnutrition among these boys, the large number of cases of diseased tonsils and of diseases of the nose and upper respiratory tract, all of which are directly concerned in the development of tuberculosis, and the excessive number of other pathological conditions which contribute to lowered vitality and resistance are probably representative of the conditions among similar groups of working boys. The writer of the report believes that such facts show the need for more extensive and detailed instruction of the school child in the elements of personal hygiene and for strict supervision of his physical development and that when the child leaves home and goes to work there should be consideration in the issuance of his work papers not of his age alone but also of his physical condition and of the probable tax upon his strength.

To the objection that the present group is not representative of the general population, Doctor Galdston states that neither are the tuberculosis deaths representative. To lump our 110,000,000 and say that the mortality from tuberculosis is so many per 100,000 does not give a true picture of the situation, as in Manhattan, for example, the Riverside section has a death rate from this disease of 50 per 100,000 and the Battery a rate of 1,117. Tuberculosis takes its most numerous victims from the ranks of the overworked, underpaid, undernourished, and ignorant masses, and the group studied, therefore, is representative of the classes from whom we get the bulk of our tuberculosis deaths.

Malaria Among Mexican Cotton Pickers in Mississippi¹

A STUDY of the extent of malaria among a group of Mexican laborers imported into Mississippi for the cotton-picking season, made by the United States Public Health Service, shows the danger of the spread of this disease through the use of migratory workers who are insufficiently guarded against infection.

The first considerable importation of these laborers into the Mississippi Delta took place in the fall of 1925 when the cotton crop was large and the supply of available labor was scarce. Approximately

¹ United States Public Health Service. *Public Health Reports*, May 20, 1927, pp. 168-1370; Malaria among Mexican cotton pickers imported into Mississippi, by M. A. Barber and C. P. Coogler.

500 of these laborers were employed in five counties of the delta, usually in groups of 50 or fewer on a plantation. Practically all of them came from a few localities in Texas where many of them had resided for some time. Nearly all were men, but a few brought their families with them. They lived in bunk houses or renters' cabins and were furnished with firewood but supplied their own food and bedding, and the places in which they lived were usually unscreened.

On one plantation where there were many cases of malaria reported in 1925, an examination of the blood of 47 laborers showed that 21.3 per cent had malaria parasites. Eighteen of those examined gave a history of illness after their arrival in Mississippi, in most cases the symptoms being those of malaria, while there had been one death. There had been no evidence of malaria among these workers until two weeks or more after their arrival and most of them stated that they had not suffered from malaria in Texas. Examinations of the members of five groups in other localities failed to show that the disease was present among them, and as many of them had come from the same localities as the group affected it seemed certain that the disease had been contracted after the workers reached Mississippi.

A similar examination in the fall of 1926 confirmed the fact that of those harboring the parasites shortly after arrival, the form was of the benign type while later examinations of the same group showed that they were suffering from the epidemic form of the disease, the type most prevalent in this region during the late summer and autumn.

From the examinations it appeared that on most of the plantations where the Mexicans were employed the amount of transmissible malaria was not great, indicating that generally throughout this region conditions were much improved over former years when immigrants to the Delta had suffered severely.

It was considered, however, that although the survey showed that the number of cases varied greatly with localities and seasons, enough was present to indicate that there was a real danger in the use of these migratory workers, both to them and to the public, unless measures were taken to protect them. Screening of bunk houses would reduce the danger and it should be the duty of employers to furnish this protection and provide medical supervision to guard against possible epidemics. The Mexican laborers remain in Mississippi but a short time, but they are there at the season of the year when the danger of malaria is greatest and it is pointed out that migratory workers are an efficient means of transmitting disease and that a group of such workers infected in one locality may carry the disease into other sections previously exempt and disseminate it there.

Accidents at Metallurgical Works in the United States in 1925

A REPORT indicating increased employment and a better safety record in the metallurgical industry (except the steel industry and blast furnaces) in the United States during the calendar year 1925 has been issued by the United States Bureau of Mines.¹

¹ United States. Department of Commerce. Bureau of Mines. Technical Paper No. 412: Accidents at metallurgical works in the United States during the calendar year 1925. Washington, 1927.

Although the data do not cover the entire industry, the returns from 484 mills, 113 smelters, and 169 auxiliary plants show that 58,935 men were employed during 1925, or 2,739 more than in 1924, an increase of 4.9 per cent. The death rate from accidents at these plants, it is stated, was reduced from 0.87 per thousand 300-day workers in 1924 to 0.66 per thousand in 1925, and the nonfatal injury rate per thousand employees was reduced from 131 to 116. These figures represent reductions of 24.1 per cent in the former instance and of 11.5 per cent in the latter. Reports of nonfatal accidents cover all personal injuries disabling an employee longer than the remainder of the day or shift on which the accident occurred. The following table gives a summary of the accident experience in this industry, classified by groups of plants:

ACCIDENT EXPERIENCE OF METALLURGICAL WORKS IN THE UNITED STATES
IN 1924 AND 1925, BY BRANCH OF INDUSTRY

Branch of industry	Men employed		Man-shifts	Fatal accidents		Nonfatal accidents	
	Actual	Equivalent 300-day workers		Number	Per 1,000 300-day workers	Number	Per 1,000 300-day workers
Ore-dressing plants:							
1924.....	15,735	16,093	4,828,014	20	1.24	2,511	156.03
1925.....	16,945	17,082	5,124,733	17	1.00	2,232	130.66
Smelting plants:							
1924.....	24,941	29,231	8,760,224	16	.55	3,293	112.65
1925.....	25,144	29,658	8,897,434	19	.64	3,376	113.83
Auxiliary works:							
1924.....	15,520	17,624	5,287,225	19	1.08	2,422	137.43
1925.....	16,846	19,480	5,843,923	8	.41	2,103	107.96
Total, 1924.....	56,196	62,948	18,884,463	55	.87	8,226	130.68
Total, 1925.....	58,935	66,220	19,866,090	44	.66	7,711	116.45

The severity rates are not given because figures covering the amount of time lost as a result of accidents and the total hours of exposure are not included in the returns. However, the accidents are classified as to extent of disability, and the average time lost may be computed by applying the scale adopted by the International Association of Industrial Accident Boards and Commissions. This report does, indicating a total of 569,132 days lost because of accidents in 1925 (1924 figures are not given in the report), giving a frequency rate of 39.04 and a severity rate 2.86 per million hours' exposure.

During the four-year period ending with 1925 accidents at metallurgical plants were less frequent, in proportion to the number of men employed, at large establishments than at small ones. Thus in 1922, the accident rate per thousand 300-day workers at small ore-dressing plants was 198; in 1923, 208; in 1924, 193; and in 1925, 191; while at large plants the figures for these years were, respectively, 172, 143, 135, and 92. A similar showing was made by the smelting plants.

Full-time and part-time employment seemed to affect the safety of employees. Without giving these figures in detail, it may be stated that, taking the extremes of operating time, the injury rates were lower for plants that were active 300 days or more than for

the plants whose periods of operation were less than 100 days. Also, the accident rate for smelters operating 8 hours per day, covering a four-year period, was shown to be generally less than those operating 9 or 10 hours; in the case of ore-dressing plants, the 9-hour plants showed the lowest accident rate per million man-hours during each of the four years noted. The report does not explain this record of the 9-hour plants except to suggest that local conditions, such as variations in type of work, character of personnel, and possible incompleteness of some accident reports, may have had an important influence.

The report includes several tables giving accident records in all branches of the mineral industry in the United States. These show that the fatality rate and the injury rate for all of the industry branches combined was lower in 1925 than in 1924, the fatality rate being 3.63 as compared with 3.85 and the nonfatal injury rate being 197 as compared with 201. The maximum fatality rate of 4.65 in 1925 was for coal mines. The lowest fatality rate, 0.41, in that year was for auxiliary works of the metallurgical industry; and the lowest nonfatal injury rate of 63.34 was for by-product coke ovens. The highest nonfatal injury rate, 468.07; was for lead and zinc mines in the Mississippi Valley.

Accidents in Cement Mills and Quarries in 1926

A REPORT of accidents in 124 cement mills and quarries of the Portland Cement Association in 1926¹ shows a total of 2,221, including 45 fatalities and 2 total disabilities, which is a reduction from 1925² of 388 accidents and 16 fatalities. This indicates a reduction of about 11 per cent in the number of accidents and of 26.2 per cent in the number of fatalities. The 124 plants reporting worked a total of 97,380,785 man-hours, and a severity rate (that is, days lost per 100,000 man hours) of 396.5 is given for 1926 as compared with 502.4 in 1925 and 650.4 in 1922.

The following table summarizes the accident rates for the eight years 1919 to 1926, covering 124 plants in 1926 but a smaller number of plants in the preceding years:

ACCIDENT RATES, PER 100,000 MAN-HOURS, OF CEMENT MILLS AND QUARRIES OF THE PORTLAND CEMENT ASSOCIATION, 1919 TO 1926

Item	1919	1920	1921	1922	1923	1924	1925	1926
Accident frequency-----	4.35	4.38	4.24	4.17	4.16	3.53	2.7	2.2
Permanent disabilities-----	.14	.14	.07	.08	.13	.09	.08	.063
Fatalities-----	.08	.09	.07	.082	.056	.068	.06	.046
Accident severity-----	669.6	727.7	617.6	650.4	541.1	586.9	502.4	396.5

Two plants, reporting a total of 1,503,145 man-hours, had no accidents in 1926.

¹ Portland Cement Association. Accident prevention magazine, May-June, 1927. Cement mill and quarry accidents in 1926. Chicago, 1927.

² An accurate comparison can not be made with 1925 and the six preceding years because many of the plants did not furnish complete reports prior to 1926, and for 1926, 11 plants made no report.

The report contains a table showing that new men suffer the greatest number of accidents. Thus, of 2,048 accidents, 658, or 32.1 per cent, happened to men who had been employed in the plants less than six months, while 901, or 44 per cent, involved men who had been employed less than a year.

In 1926 the greatest number of accidents in any one department occurred in quarries, the number being 465, or 20.9 per cent, involving a loss of 10,846 days, or 24.5 per cent of the total days lost. As to causes, the greatest number of accidents, 309, or 14 per cent, is charged to falls, this cause entailing a time loss of 6,362 days, or 14.4 per cent of the total time lost from all accidents. The greatest time loss, however, was due to machinery accidents, the number of days lost being 7,701, or 17.4 per cent of the total.

A report just received from the Portland Cement Association states that during the first half of June, 1927, 151 out of 164 cement mills had no accidents, 11 mills had 1 accident each, and 2 mills had 2 accidents each. This is a total of 15 lost-time accidents, none of which had a fatal termination. During the same period in 1926 there were 153 lost-time accidents, 5 of which resulted in death, reported by fewer plants employing fewer men than in 1927.

Eye Hazards of Industrial Occupations

INDUSTRIAL accidents resulted in serious injury to the eyes of 719 workmen in New York State during 1926, according to a statement issued recently by the National Committee for the Prevention of Blindness. Seven workmen lost the sight of both eyes, 349 suffered total loss of the sight of one eye, and 363 sustained partial but permanent injury to one eye. The cost to the employers in compensation amounted to \$1,300,000, and it is estimated that there was a loss to these employees of 70,000 weeks of working time. The types of injuries included cuts, punctures and lacerations, and burns to the eyes from the splashing of molten metal and chemicals.

Estimates by officials of the National Safety Council and of insurance companies place the indirect cost of accidents at four times the direct cost, and on this basis the industries of the State are costing the employers, and through them the general public, approximately \$5,000,000 a year for this class of injuries alone. A study of the accident-prevention methods and accomplishments of many industries indicates that the greater part of this loss and the human suffering growing out of these accidents is preventable and therefore wholly unnecessary. Many of the great manufacturing industries have spent hundreds of thousands of dollars for the protection of the eyes of their employees and they would not continue to spend such sums "if they were not convinced by actual experience in their own plants that it is cheaper to prevent eye accidents than to pay for them." Protective devices for machines and men, many of which are not patented and can be made in any workshop, are available and if properly used would prevent the majority of such accidents, and detailed information concerning these methods of prevention is available to employers generally.

It is the belief of the National Committee for the Prevention of Blindness that the greatest possibilities for the elimination of the

eye hazard in industrial occupations lie in the education of the State as to its moral and economic obligations, education of the employer as to the advantage of supplying adequate protection and education of the employee as to the necessity of using this protection when it is provided.

Mortality Experience of International Typographical Union, 1926¹

IN AMPLIFICATION of the health survey of the printing trades, 1922 to 1925, recently published by the Bureau of Labor Statistics (Bul. No. 427), there is given below an analysis of the mortality experience of the International Typographical Union for 1926, compiled in strict conformity with the international classification of causes of death. It will be observed that the experience in the aggregate concerns 913 tabulatable cases. There were in 1926, 87 deaths from tuberculosis of the respiratory system, or precisely the same number as during 1925. There were 64 deaths from cancer of all forms, corresponding to 66 deaths from malignant diseases during 1925. There were 2 deaths from chronic lead poisoning, being the same as in the previous year. There were 83 deaths from pneumonia other than bronchial pneumonia, against 73 during 1925. There were 38 deaths from chronic nephritis during 1926, against 55 classified as Bright's disease during 1925.

The record for the year is, therefore, much like the one for the previous year, suggestive of the value of an annual uniform compilation of the causes of death, which in course of time will be precisely correlated to the membership, which for the present purpose has not been feasible.

MORTALITY EXPERIENCE OF INTERNATIONAL TYPOGRAPHICAL UNION, 1926, BY CAUSE AND AGE GROUP

International list number	Cause of death	Age at death (years)														
		All ages	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89
1a	Typhoid fever	2	1				1									
8	Scarlet fever	1					1									
11b	Influenza without pulmonary complications specified	6					2					3				1
21	Erysipelas	4								3	1					
23	Lethargic encephalitis	1								1						
31	Tuberculosis of the respiratory system	87	2	7	8	13	19	8	14	6	6	2	2			
32	Tuberculosis of the meninges	1							1							
38d	Tuberculosis of the genito-urinary system	1										1				
41	Purulent infection, septicemia	7					1	1	1		3		1			
43	Cancer of the buccal cavity	1									1					
44	Cancer of the stomach, liver	7								1	1	1	1	1		
45	Cancer of the peritoneum, intestines, rectum	4	1								1				2	
49	Cancer of other or unspecified organs	52		1		1	3	2	4	8	9	12	5	7		
50	Benign tumors and tumors not returned as malignant	2								1				1		
52	Chronic rheumatism, osteoarthritis, gout	1											1			
57	Diabetes mellitus	15	1				1		1	1	5	3	1		3	
58a	Pernicious anemia	8						2		1	4	1				

¹ By Frederick L. Hoffman, Consulting Statistician, Prudential Insurance Co., Newark, N. J.

MORTALITY EXPERIENCE OF INTERNATIONAL TYPOGRAPHICAL UNION, 1920, BY CAUSE AND AGE GROUP—Continued

International list number	Cause of death	Age at death (years)														
		All ages	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89
58b	Other anemias and chlorosis	1														
60a	Exophthalmic goiter	1							1							
60b	Other diseases of the thyroid gland	2									2					
65a	Leukemia	2							2							
65b	Hodgkin's disease	2							1	1	1					
67a	Chronic lead poisoning	2					1				1					
69	Other general diseases	2												1		
70	Encephalitis	2				1				1						
71	Meningitis	1								1						
72	Tabes dorsalis (locomotor ataxia)	3							1	1	1	1	1			
73	Other diseases of the spinal cord	3								2	1					
74a	Cerebral hemorrhage	47				1	1	5	9	10	8	3	9		1	
75b	Paralysis without specified cause	20					1		2	4	4	2	3	3	1	
76	General paralysis of the insane	15				1		3	3	3	2	1	2			
78	Epilepsy	1											1			
82	Neuralgia and neuritis	2							1			1				
84	Other diseases of the nervous system	5						2	1		1	1				
86	Diseases of the ear and of the mastoid process	1												1		
89	Angina pectoris	25				2	2	4	3	3	7	2	1	1		
90b	Other diseases of the heart	197	1	4	2	4	9	19	35	25	37	23	22	12	2	2
92	Embolism and thrombosis	3						1	1	1						
93	Diseases of the veins	1							1							
95	Hemorrhage without specified cause	2			1	1										
99a	Bronchitis, acute	3						1		2						
99b	Bronchitis, chronic	2							1				1			
100a	Broncho-pneumonia	2							1			1				
101a	Pneumonia, lobar	8				1	1		2		2		2			
101b	Pneumonia, unspecified	75	1	2	4	4	3	8	2	10	17	7	6	7	4	
103	Congestion and hemorrhagic infarct of the lung	4							2		1			1		
105	Asthma	1									1					
107	Other diseases of the respiratory system	3									2		1			
111a	Ulcer of the stomach	4							1		1	1	1	1		
111b	Ulcer of the duodenum	1							1							
112	Other diseases of the stomach	7							1	3	3					
114	Diarrhea and enteritis (2 years and over)	1													1	
117	Appendicitis and typhlitis	15	2		1	3	3	2	3			1				
118a	Hernia	4							2	1		1				
118b	Intestinal obstruction	2			1								1			
119	Other diseases of the intestines	2										1	1			
122b	Cirrhosis of the liver, not specified as alcoholic	5							1		2	1	1			
124	Other diseases of the liver	1								1						
126	Peritonitis without specified cause	4							1	1		1	1			
129	Chronic nephritis	38	1		1		4	5	4	4	8	6	2	3		
131	Other diseases of the kidneys and annexa	6					1		1	1	1		2			
133	Diseases of the bladder	1									1					
135	Diseases of the prostate	1											1			
151	Gangrene	3							1	1			1			
153	Acute abscess	3					1			1		1				
154	Other diseases of the skin and annexa	2										1	1			
164	Senility	16										1		2	4	5
174	Other suicides	1								1						
182	Accidental drowning	4	1		1				1		1					
183	Accidental traumatism by firearms	1			1					1						
188c	Automobile accidents	7	1	1		1	2		1			1				
190	Homicide by other means	1							1							
201	Fracture (cause not specified)	5			1			2			1	1				
202	Other external violence	25	1	2	2	1	3	3	3		2	2	3	2	1	
205a	Ill-defined	66	1	1	4	4	2	5	7	8	12	10	5	4	3	
205b	Not specified or unknown	49	1	3	2	1	3	5	4	6	13	4	5	1		
	Total	913	13	22	29	41	57	77	106	124	145	107	88	61	30	11
																2

Cooperation Versus Compulsion in Safety Policy of Large Plant

GETTING the employees to realize the personal benefits of safety rather than compelling them to observe any set rules of safety practice is the policy being pursued in the enterprises founded by George Westinghouse, as described in an article appearing in a recent issue of the National Safety News.¹ Referring particularly to one plant of the Westinghouse Air Brake Co. where this principle has been developed, the author states that "one striking feature of safety work in this plant is the absence of compulsion," that "employees work safely because they realize its benefits, not because the management insists upon it," and cites as an example the fact that where the hazards of the occupation require them—grinding wheels, steam hammers, in the foundry, and in the lead mixing department—goggles and respirators are worn without question by employees. The hazards are so well known that they will not take a chance.

Attention has been given to what are termed "good housekeeping" factors which are considered the foundation of safety work in a plant. These include: (1) White aisle lines to avoid congestion; (2) maximum of daylight, and semi-indirect system of lighting which insures illumination without glare when daylight fails; (3) direct ventilation from open windows; and (4) adequately guarded machinery.

In addition there is an active and alert safety committee, each member of which receives from the company, as a mark of appreciation, an additional \$15 per month in wages or salary.

Supplementing this "good housekeeping" program is the attention given to injured employees. Physical examinations are conducted each month to determine incipient cases of lead poisoning, and instruction in personal hygiene has taught employees how to escape the hazards which can be avoided only by habits of cleanliness. Interesting to note is the statement made by the author that the "plant dispensary was the only department not busy on this particular morning," and he adds in explanation "that the accident experience of the plant leaves ample time for medical research and health education of employees." Although figures are not given, a low accident frequency rate is suggested and a severity rate approximating 1.0 during 8 of the past 10 years is noted, for which credit is given to the general safety policy and to the medical department of the plant. Infection cases are few because "first aid has become a habit among the employees."

The plant maintains relief, pension, compensation, and group-insurance departments. All employees are eligible to these benefits upon the payment of fees ranging from 50 cents to \$1.50 per month, depending upon the wages received. Benefits for disability due to sickness or nonindustrial accidents are from \$5 to \$15 per week. Payments are not made during the first seven days of disability but are paid thereafter until the member returns to work. In case of death \$150 is paid to dependents of the deceased member, and if he had been with the company for two years or more an additional \$150 is paid.

¹ National Safety News, Chicago, June, 1927, pp. 24-26: "Where cooperation has canceled compulsion," by C. T. Fish.

The pension fund is maintained solely by the company. Seventy years is the retirement age, but an employee may be recommended for retirement at any time after he reaches 60 years.

The service pension is 1 per cent of the average monthly earnings for every year of continuous service, based on the 10 years during which the employee received the largest total income, selected out of the last 20 years, or less, of continuous service. The minimum service pension is \$30 per month and the maximum \$100.

On the death of a service pensioner, his widow is granted 80 per cent of his pension until death or remarriage, with two years' pension after remarriage, plus 10 per cent additional for the support of each child under 16 years of age.

The company liberalizes somewhat the State compensation law by granting a maximum of \$15 a week (State law provides \$12) for disability, with no waiting period (State law requires 10 days). Pension for dependents is provided in addition to this.

Through a contributory group-insurance plan employees may obtain life insurance at \$9 per year per thousand, the difference between this amount and the total premium being paid by the company.

The author states that the plan as outlined has resulted in an exceptionally low labor turnover rate and a large waiting list in the employment department.

Carbon Dioxide a Safe Substitute for Explosives in Mining Coal¹

A NEW method of bringing down coal at the face which avoids the hazards present in the use of the ordinary explosives has been tested in at least six different mines in Indiana and Illinois during the past year. The tests have been carried out on three different types of faces and in coal seams varying from 39 inches to $8\frac{1}{2}$ feet in thickness.

Liquid carbon dioxide compressed within a steel cylinder or bomb 4 inches in diameter and approximately 37 inches long is used in bringing down the coal. A heating element or priming charge composed of certain chemicals which will evolve heat quickly under the action of a powerful electric current is placed in the bomb and the bomb is so constructed that under the action from the force within the gas is liberated against the coal at four points. The detonation of the gas is not in any sense an explosion nor even a chemical process, but its action is entirely physical, exerting a true heave on the coal. In order to be successful the transformation of the liquid to gas must be in an extremely brief interval, about one-twentieth of a second, otherwise it will give inefficient results or will fail to bring down the coal at all.

The amount of carbon dioxide in the bombs ranges from 2 to 5 pounds and the amount of heating element required to exactly gassify the liquid charge can be calculated within close limits. Each day's supply of bombs or cartridges can be taken into the mine at any time as they are comparatively inert. It takes from 150 to 250 amperes of current at 80 volts or more to start the reaction in the heating element and stray currents within the mines are entirely

¹ Coal Age, May 12, 1927, pp. 688, 689. "Carbon dioxide furnishes safe means of bringing down coal at face," by Frank H. Kneeland.

too small to start this reaction as, so far, the maximum stray current discovered in any American coal mine is approximately 15 amperes at 30 volts. The bombs can also be used in extremely gassy places, as the maximum gas temperature developed is less than one-half the temperature required to ignite the most explosive mixture of air and methane.

The bombs are placed in holes driven in the face in much the same manner as the ordinary explosive and when ready, connection to the lead wires is made, and the bomb is discharged by the momentary closing of a switch. It is not necessary for the workmen to retire to any great distance, but it is desirable that they should not stand in line with the bore hole, as the bomb is occasionally blown out of the hole. In practice, however, the new method has been developed to the point where it is at least 98 per cent reliable and misfires or "duds" are rare. If it does fail to go off there is no danger in approaching the hole at once, as in that event the liquid will gassify so slowly as to have no effect. The effect of the bomb on the coal face resembles the dumping of a carload of coal and there is practically no vitiation of the atmosphere, the increase in carbon dioxide content of the air seldom exceeding 0.5 per cent.

The bombs are strongly constructed and, while they are fairly expensive at first, they can be used indefinitely. There is also no hazard connected with their transportation when loaded, as dropping or crushing, and short circuiting them with electric current has no effect. Although the actual expense involved in the use of this material has so far been slightly greater than when explosives are used, it is believed that this expense will eventually be appreciably decreased; and those using the carbon dioxide agree that the advantages secured, such as greater safety and a better quality of output, far more than offset the comparatively slight increase in expense.

Coal-Mine Accidents in Missouri in 1926

THE report of the State bureau of mines for 1926 shows that with a substantial increase in the production of coal the number of fatal accidents fell from 11 in 1925 to 7 in 1926, while in metal mines the number of fatalities increased from 6 to 11. It perhaps should be considered that in the latter mines nearly 500 more men were employed in 1926 than in the preceding year, and that in both classes of mines about 1,500 more men were working during the last year. Thus there has been an actual improvement in the number of fatalities. The following is a summary indicating the accident experience for 1926:

Coal mines:

Total number of fatal accidents.....	7
Number of tons of coal mined per fatal accident.....	407,126
Number of men employed per fatal accident.....	815
Number of man-shifts worked per fatal accident.....	163,000

Lead and zinc mines:

Number of men employed.....	4,905
Total tons of concentrates produced.....	348,414
Total number of fatal accidents.....	11
Tons of concentrates produced per fatal accident.....	31,674

Enactment of Safety and Health Law in Ecuador

THE acting president of the Republic of Ecuador has promulgated a law requiring preventive measures to be adopted against industrial accidents and occupational diseases, the text of which appears in the March 11, 1927, issue of *Registro Oficial* of Guayaquil.

Employers are obliged to observe, in factories, workshops, and in all other establishments, the legal requirements as to sanitation and health and to adopt adequate measures to prevent accidents in the use of machines and other instruments. Labor inspectors shall see that the employers comply with the regulations issued by the sanitary authorities, among which are the following: (1) All workrooms must be kept clean and free from any noxious emanations, (2) proper lighting and sufficient means of ventilation must be provided in all the workrooms, (3) the sanitary authorities are to determine the number of persons who may be employed in any room of a factory, (4) special care must be taken to secure general orderliness in the establishment, (5) smoking is prohibited in all factories.

The law stipulates that if dust or other impurities are generated in quantities tending to injure the health of the employees, proper devices to remove such impurities from the workroom shall be provided.

Women and children under 18 years of age may not be employed in the following industries or occupations: (1) Work involving the danger of industrial poisoning as in the manufacture of white lead, minium, paints, or varnishes which contain lead or arsenic salts; (2) manufacture of explosive, inflammable, or poisonous products; (3) operations in which injurious dust is produced, as in the cutting and polishing of glass or emery polishing; (4) stevedoring; (5) the oiling of machinery while in motion; and (6) work requiring the handling of leather belting, circular saws, and similar mechanical apparatus.

Woman employees must be given a period of four weeks before childbirth, and six weeks thereafter, at one-half of their regular wage. Confinement may not be alleged as a reason for dismissal.

Those who do such work as stonecutting, polishing, photo-engraving, sculpturing, and the like, must wear glasses or some similar protective device. Employers of workers constructing or cleaning conduits and shafts must previously have had such places ventilated. Scaffolding on buildings over a certain height must be equipped with a handrail on each side.

The cleaning of machinery while in motion is prohibited. Block pulleys, felloes, gears, rails, and in general all projecting parts of machines shall be substantially guarded. Proper belted-in garments should be worn by those working on machines. Before the starting of all machines ample warning shall be given by effective signals.

All industrial establishments shall have emergency medicine chests to provide first-aid treatment to the workers in case of accident.

Operators who use electricity shall be taught the dangers to which they are exposed and shall be provided with insulators and other protective devices.

The Ministry of Social Progress and the labor inspectors shall have charge of the enforcement of this law and shall impose a fine on those employers who do not comply with its provisions.

Silicosis in the Pottery Industry in Great Britain

IN CONNECTION with a movement among trade-union members in Great Britain to have "potter's asthma" or silicosis included as an occupational disease under the workmen's compensation act an investigation¹ was carried out by the Home Office regarding the facts as to the incidence of the disease in the pottery industry.

The study included medical examinations of 344 male and 224 female workers, together with radiographic examinations of the lungs of many of these workers.

When the study was undertaken there was already evidence that silicosis was produced among workers exposed to the inhalation of dry flint dust in the manufacture of china, but there was doubt as to the production of silicosis in similar processes in the manufacture of earthenware, in which sand or crushed siliceous material replaces flint.

The occupations which are of the greatest importance from the standpoint of the dust hazards were found to be those in which the raw materials are handled, as in flint milling; the manipulation of the composite body of the ware; the placing of flint or sand used in firing biscuit ware and the removal of the sand adhering to the ware; and occupations involving exposure to other dusts, as in mold and sagger making and glaze dipping.

The frequency with which fibrosis of the lungs was diagnosed in the medical examinations, at a period of employment earlier than that at which silicosis was found by radiological examination in the same occupational groups, was regarded as one of the significant features of the report. Fibrosis of the lungs may be caused by the inhalation of dusts other than silica, but the fibrosis caused by inhalation of silica has certain characteristics which make it easily demonstrable by a skilled observer by means of radiological examination. It is considered that fibrosis of the lungs may take a shorter time to develop or may require a lower concentration of dust than silicosis but there are other factors, such as a number of occupations being followed by the same subjects, which may possibly modify the significance of the sequence.

The cases of silicosis revealed by the examinations numbered 87 and were grouped as follows, according to period of employment:

Number		Number	
Under 5 years.....	1	25 to 30 years.....	15
5 to 10 years.....	2	30 to 35 years.....	15
10 to 15 years.....	8	35 to 40 years.....	8
15 to 20 years.....	7	Over 40 years.....	17
20 to 25 years.....	14		

It will be seen that the great majority of cases occur after 20 years' employment in the industry, although in the occupations where the incidence of silicosis is high the study showed that it appears at an earlier stage in the occupational history of the workers.

Among workers exposed to unmixed flint dust, 112 clinical and 71 radiographic examinations were made and 59 cases were diagnosed as fibrosis and 28 as silicosis, 23 of the cases of silicosis occurring in

¹ Great Britain. Home Office. Report on the incidence of silicosis in the pottery industry, by Dr. C. L. Sutherland and Dr. S. Bryson. London, 1926. 52 pp.

the occupations of biscuit placers, biscuit oddmen, and biscuit warehousemen, 3 in flint milling, and 1 each among glost placers and polishers. Of the workers exposed to dust from composite body, 345 received clinical and 136 radiographic examinations, and there were 125 cases of fibrosis and 53 cases of silicosis found. Twenty-nine of the 53 cases of silicosis occurred in general earthenware manufacturing—from slip house to lookers to ware; 9 among the same classes of workers in china; 5 in the manufacture of tiles, including slip-house workers and pressers; 6 in sanitary earthenware, including casters and pressers; and 4 in electrical earthenware, from slip house to fettlers. In the occupations in which the dust hazard is from placing sand on ground siliceous material, 1 case of silicosis was found out of a total of 37 clinical and 14 radiographic examinations, and in occupations in which the dust hazard is indefinite but is liable to contain flint there were 37 clinical and 14 radiographic examinations made and 5 cases were diagnosed as silicosis.

In summing up the results of the examination it is stated that in the opinion of the investigators it had been demonstrated that silicosis exists among workers in the pottery industry to a very considerable degree and that the evidence tends to emphasize the danger which arises from processes which have been regarded as comparatively safe because of the materials being damp or wet.

The improvements recommended for the protection of the workers are the provision of impervious floors and benches, frequent cleansing of workplaces, including walls, prohibiting the deposit in workrooms or yards of any material not necessary for the purposes of the work which is dry, or liable to become dry and produce dust, and the provision and frequent washing of overalls for all persons employed in handling any clay body which contains over 10 per cent of flint.

COOPERATION

Cooperative Societies as Regulators of Retail Prices

ALTHOUGH it is a general rule with consumers' cooperative societies to make their prices approximate those prevailing in the locality, they "do not hesitate to adopt prices very appreciably lower than those of private trade whenever and wherever it appears to them to be necessary in order to restrain an excessive or too rapid rise." An inquiry made for the International Economic Conference held at Geneva, in May, 1927, the results of which have recently been published,¹ points out that when the cooperative store departs from the current prices the private dealer is usually compelled to do likewise. "Besides the benefit of the dividend and the generally lower prices which the members of cooperative societies enjoy, regard must therefore also be had to the effect of the existence of a cooperative society as a regulator of prices."

The report cites certain instances to illustrate this point. Eight loaves of bread purchased in private bakeries in Cologne (Germany) and an equal number baked by the cooperative society were compared, the price being the same in all cases. Considerable differences were found in the weight of the loaves. When the weight of the loaf was considered in relation to the price it was found that "the price of the loaf was 12.2 per cent higher in the case of the private bakers than in the case of the cooperative society."

In Switzerland a similar comparison was made on a national scale. Since 1912 the Swiss Union of Consumers' Cooperative Societies has published quarterly statistics of retail prices, these figures covering since June, 1919, the prices charged by cooperative societies in 25 towns having a population of over 10,000 each. Until recently the Swiss Government had no index number of food prices of its own, and the cooperative food index was accepted as the official index. The Swiss Grocers' Association has also lately begun to report prices charged by its members. Comparison of the cooperative and private prices of 29 articles which were susceptible of such comparison showed that the cooperative prices were lower for 25, identical for 3, and higher for only 1.

In Erfurt (Germany) it was found that, even after deducting the dividend of 3 per cent from the prices paid to the cooperative society "the cost of the purchases from Retailer A was 25 per cent and from Retailer B 6.5 per cent higher than at the cooperative society. These differences in price would be considerably increased by taking into consideration the difference in weight of certain articles."

In order to measure the influence of the cooperative society on the general level of prices, prices were taken in six localities in France—one in which a regional cooperative union had its headquarters, two in which it had branches, one in which a branch was being established, and two in which there was no cooperative society. The prices charged by the cooperative society were the same in all four

¹ League of Nations. Economic and Financial Section. C. E. I. No. 11: Results of certain of the inquiries for instituting a comparison between the retail prices in private trade and those of distributive cooperative societies. Geneva, 1926.

places in which there was a cooperative store. It was found that "the prices charged by retail traders increase from one locality to another * * * in inverse proportion to the activity of the cooperative societies."

In Hungary, where prices were taken when the local cooperative society first opened its doors and again some months later, the inquiry disclosed that from the first the cooperative prices were lower than those of private dealers. The latter lowered their prices 20 per cent but even then were above the cooperative price level.

The report points out that comparisons such as the above are open to the objection of being possibly due only to coincidence. An experiment was therefore made under conditions designed to eliminate this objection. The prices of 25 or 30 articles were noted at the same day in two localities at small grocery stores, at chain stores, and a large grocery store. This was done on the day the cooperative store opened and twice later, at intervals of two months.

On August 28, 1919, that is to say, before the cooperative society could exercise any influence, the difference between the prices charged by the cooperative society and those charged by the traders in question was 31 per cent. On January 2, 1920, it was 22 per cent and on July 7, 1920, it was only 11 per cent, still in favor of the cooperative society.

At the same date the departmental cooperative society decided to make the crucial experiment. It purchased the same articles in two chief towns of the arrondissement in which it had no branches, and it noted that the difference between its prices and the prices of private traders in these localities was 30 per cent, that is to say, nearly the same as the difference observed 10 months earlier in the localities in which it had just established branches.

As a result of an inquiry made by the Swedish Government the department making the study comments as follows:

It is clear that consumers' cooperation offers a vigorous defense against the tendencies of private trade to combine in order to keep up prices artificially. Many examples could be mentioned where large organizations of shopkeepers have been forced by the cooperative society to pull down their prices—an act which the association between them otherwise would have prevented. The great importance of the cooperative movement in this respect has been proved in a remarkable degree, particularly during the period of depreciation, when the cooperative societies, as a rule, have been the first to cut down prices.

In Great Britain the royal commission on the coal industry, as part of its general study, made an investigation of the prices of cooperative societies dealing in coal and reported as follows:

The general result of this comparison is to suggest that the expenditure of the retail merchants on establishment and clerical salaries is excessive; if all the retail trade in London could in these respects be conducted as economically as that of the cooperative society whose accounts have been examined, a very substantial margin would be available, either for reducing prices to the consumer or for increasing prices to the colliery, and so increasing wages to the miner.

Part Played by Agricultural Cooperative Organizations in International Trade

THAT cooperative organizations play a surprisingly large part in the international trade of agricultural products is shown by a report¹ prepared for the use of the International Economic Conference at Geneva.

¹ League of Nations. Economic and Financial Section. C. E. I. No. 14: The part played by cooperative organizations in the international trade in wheat, dairy produce, and some other agricultural products. Geneva, 1926.

In Denmark more than 85 per cent of the farmers are members of cooperative dairies and slaughterhouses, and so powerful is the cooperative export organization that all butter intended for export must be sold under the cooperative trade-mark. The table below, compiled from data given in the report, shows the per cent of the total output and exports of various commodities which are handled by cooperative organizations, in specified years and countries:

PROPORTION OF CROP AND EXPORTS OF EACH COMMODITY HANDLED BY COOPERATIVE ORGANIZATIONS IN SPECIFIED COUNTRIES

Country	Year	Commodity	Per cent of—	
			Output	Exports
Denmark	1924	Bacon	81.9	(1)
Latvia	1925	do	(1)	54.3
Denmark	1925	Eggs	(1)	25.0
Netherlands	1925	do	(1)	25.0
Russia	1925	do	(1)	50.0
Poland	1926	do	(1)	5.0
Estonia	1923	Wheat	(1)	33.0
Australia	1922-23	do	(1)	70.0
Canada	1925-26	do	(1)	66.7
United States	1926	Raisins	90.0	(1)
	1922	Oranges and lemons	61.5	(1)
	1925-26	do	25.0	(1)
Algeria	1922	Prunes and plums	28.4	(1)
United States	1926	Honey	(1)	63.0
Hungary	1926	Tobacco	(1)	85.0
Russia	1924-25	Wool	(1)	8.0
South Africa	1925	do	25.0	(1)
Canada	1925	Flax	30.0-35.0	(1)
Russia	1925	Cotton	9.3	(1)
United States	1925-26	Butter and cheese	(1)	38.5
Denmark	1922	do	{ 465	(1)
Netherlands	1925	do	{ 45	(1)
Finland	1924	do	{ 492	70-80
Estonia	1925	do	{ 470	(1)
Australia	(1)	do	84	(1)
New Zealand	(1)	do	91	(1)
Latvia	(1)	do	80	92
Russia	1925	do	(1)	90
		do	(1)	100

¹ Not reported.

² Provinces of Alberta, Manitoba, and Saskatchewan.

³ Butter only.

⁴ Butter.

⁵ Cheese.

⁶ Year not specified; presumably 1926.

Development of the Postal Credit Union Movement

THE credit union movement has had a rather remarkable growth among the postal employees of the country. The first postal credit union was formed on January 5, 1923. During the four years since that time the number of societies has risen to 75 and the members now number nearly 14,000. The table below, compiled from Bulletins 1-6 issued by the director of service relations of the Post Office Department, shows how rapidly the movement has spread:

DEVELOPMENT OF POSTAL CREDIT UNIONS

Date	Number of societies	Number of members	Paid-in share capital	Deposits	Total loans granted	Loans outstanding
Jan. 5, 1923	1	8	(1)	(2)	(2)	(2)
End of 1923	7	(2)	(2)	(2)	(2)	(2)
Dec. 26, 1924	25	(2)	(2)	(2)	(2)	(2)
Apr. 1, 1925	36	5,087	\$157,848	\$8,542	\$283,634	\$162,764
Oct. 1, 1925	44	7,320	250,209	7,734	590,919	257,702
Apr. 1, 1926	48	9,726	422,686	16,837	1,054,303	385,176
Sept. 30, 1926	63	11,429	530,381	32,808	1,599,465	583,309
Mar. 31, 1927	75	13,993	731,773	50,366	2,310,633	723,243

¹ 10 shares of stock; amount not stated.

² Not reported.

Cooperative Buying of Gasoline and Motor Oils

COOPERATIVE buying of gasoline and automobile oil is a comparatively new development in the cooperative field. The Northern States Cooperator (issue of February, 1927) is authority for the statement that the first cooperative of this type in Minnesota was formed in Cottonwood in July, 1921, by a group of members of the Farm Bureau. Since that time societies have been formed here and there throughout the State, and now there are reported to be more than 50 such companies either already operating or in process of organization.

At the end of 1925 the officers of a number of these companies held several informal meetings, as a result of which was formed in September, 1926, a central company, the Minnesota Cooperative Oil Co. This is a nonstock, nonprofit organization formed for the purpose of assisting in the organization, bookkeeping, and purchasing of supplies for the local societies. About 20 local companies are now reported to be members of the association.

The Bureau of Labor Statistics has knowledge of the existence of at least one cooperative oil company in Iowa, one in Washington, and two in Wisconsin. The movement has also spread to Nebraska, where it is being actively fostered by the Farmers' Union. According to a report in the May 11, 1927, issue of the Nebraska Union Farmer, there are 11 cooperative associations which are in the gasoline and oil business and 7 others in process of organization. Preliminary steps have been taken toward the formation of a federation to do joint buying of the gasoline and oil sold by the local associations and to attempt the solution of their operating problems. It is possible that the buying will be done through the Farmers' Union State Exchange at Omaha.

Savings Effected in One Cooperative Store

AS AN illustration of the savings possible through membership in and patronage of a well-managed cooperative store, the Central States Cooperator (Bloomington, Ill.) of May, 1927, cites the records of six members of the Villa Grove Cooperative Society. These members all moved from Villa Grove to take positions elsewhere, and resigned from the society in consequence. The following table, compiled from the reports, shows the length of time each of these persons was a member of the society, the amount he invested in the society, and his total return in terms of dividends on purchases and through refund of capital:

SAVINGS EFFECTED BY SIX COOPERATORS THROUGH MEMBERSHIP IN AN ILLINOIS COOPERATIVE SOCIETY

	Amount contributed in capital	Period of membership	Amount of purchase dividends and capital refund
Cooperator No. 1	\$50	6 years 9 months	\$659.79
Cooperator No. 2	100	5 years 3 months	416.16
Cooperator No. 3	50	7 years 3 months	275.97
Cooperator No. 4	30	do	261.11
Cooperator No. 5	50	7 years 2 months	245.42
Cooperator No. 6	30	2 years 4 months	130.43

A Cooperative Community in Czechoslovakia¹

AN EXAMPLE of the possibilities of cooperation in the daily life is given in Prikazy, a village of Czechoslovakia. The beginning was made 60 years ago by a man who was "an enthusiastic cooperator and who succeeded in stirring his neighbors into action."

The village consists of 350 families, each having about 30 acres of land. Due to cooperative effort, the bread for the community is baked in a cooperative bakery, the flour is made in a cooperative flour mill which is stated to be "the last word in up-to-date milling," and there is a cooperative chicory factory and a large cooperative malt kiln. The produce of the community is marketed cooperatively and the livestock is improved by breeding through the cooperative bull and boar society.

Financial matters are handled through the cooperative credit society, which is housed in a beautiful building erected three years ago at a cost of about \$175,000. The credit society is also the local savings bank. In the same building are a cooperative restaurant, a theater seating about 500, a gymnasium, "and, finally, an unlimited number of hot and cold baths for the use of the villagers."

Prikazy shows what high organization can do and how it has carried a community through the throes of the Great War, and through the necessarily difficult period attendant upon the formation of a new State, leaving it rich and prosperous.

New Marketing Law of British Columbia

ON THE authority of advance notices, it was erroneously stated in the May, 1927, issue of the Labor Review that British Columbia had passed a law providing for compulsory cooperative marketing. Study of excerpts from the law, furnished by the Cooperative Marketing Journal (Memphis, Tenn.), discloses that the law provides for a new marketing procedure altogether. It places the marketing of all tree fruits and vegetables grown in the district in the hands of a committee of direction of three persons, two of whom are chosen by a federation composed of the growers' cooperative society and a large majority of the commercial shippers in the district. The third member is appointed by the lieutenant governor of the Province.

The committee is given authority to determine "at what time and in what quantity and from and to what places, and at what price the produce may be marketed." Each shipper shall, however, be permitted "to ship such proportion of his supply of the product as the quantity fixed to be marketed at that time bears to the total estimated available for marketing." The committee is empowered to require the shipper to report to it the quantity he has or will have for marketing, and to inspect his books, accounts, etc.

The Cooperative Marketing Journal states:

This law has been frequently referred to in the press as compelling farmers to cooperate in marketing their products when 75 per cent join a cooperative. But it does no such thing. It does not compel farmers to cooperate at all, and it can be put into operation without the existence of a cooperative. What it

¹ International Labor Office. Cooperation, 49. Geneva, 1927.

does is to compel the shippers of agricultural products to cooperate and sell only in such quantities, in such markets, at such prices and on such terms as may be fixed by a committee of three. Dealers or shippers who will not submit to the control of the committee are not permitted to do business. A farmer can not sell his own products unless he obtains a license and operates under the direction of the committee. Thus it compels the organization not of farmers, but of the agencies of trade (cooperative and commercial) which market the farmer's products.

The purposes of the law are (1) control by law as distinguished from voluntary cooperation, and (2) the requirement that all producers, and not merely the few who join a cooperative, shall bear the cost of stabilizing prices.

The action was made necessary, it is stated, by the condition of the market.

WORKMENS' COMPENSATION AND SOCIAL INSURANCE

Recent Compensation Reports

British Columbia

THE Workmen's Compensation Board of British Columbia in its tenth annual report, for the year ended December 31, 1926, states that during the year final awards were made in the amount of \$2,615,732. There were 30,365 accidents reported. Of these, 198 were fatal, while 12,206 were of a minor nature, being given medical aid only, and 15,697 caused temporary disability but required both medical aid and time loss payments. Seven hundred and eighteen permanent total or permanent partial disability cases were settled.

In 7,218 cases the disability terminated within 14 days, while in 2,620 cases the length of disability was over 2 to 3 weeks, in 1,606 cases over 3 to 4 weeks, and in 1,051 cases over 4 to 5 weeks.

Estimated pay rolls for the year amounted to \$175,000,000 as compared with \$164,216,219 for 1925. Administrative costs amounted to \$2.54 for each \$100 collected, as compared with \$4.94 in 1917, the first year the act was in operation.

There are 19 classes of industries embraced in the schedule. The largest number of accidents occurred in class 1 (lumbering), which had 43 per cent of the total; class 7 (construction) came second with 10 per cent; and coal mining third with 7 per cent. Only 770 out of the total number of employees injured during the year were in receipt of any kind of benefit other than that provided by the compensation act.

On December 31, 1926, 7,613 employing firms were complying with the act as compared with 7,197 at the end of 1925. Tables are given showing injuries by classes, causes, nature, and extent, duration, average daily wage, average age, etc. The average length of disability was 34.69 days and the average age of the employees was 35 years. Fifty-one per cent of all those injured were married.

During the effective period of the act (10 years) 219,670 accidents have been reported, 2,206 of them being fatal, 4,898 left the injured worker either partially or totally incapacitated for further work for life. At the end of 1926, the pension list included 631 widows, 1,063 children under 16, 106 dependent mothers, 42 dependent fathers, 30 other dependents, and 951 permanently disabled workmen.

Ontario

THE Workmen's Compensation Board of Ontario has recently issued its twelfth annual report, which covers in general the calendar year 1926, and also gives final data for 1925.

The number of accidents reported for the year was 65,916. This is the highest number of accidents ever reported to this board in a

single year, the next highest number being 61,109, in 1923, while the number in 1925 was 60,012. Of these, 400 were fatal, as against 345 for the previous year. Medical aid only was required in 24,142 cases in Schedule 1 industries; temporary disability cases numbered 30,019; permanent partial disability cases, 2,384; and permanent total disability cases, 14. Fatal cases numbered 311.

In 1926, benefits were awarded amounting to \$5,821,352, as compared with \$5,565,443 in 1925. There are two principal schedules—Schedule 1 including private industries in general, and Schedule 2, the operation of railroads, steamboat companies, and other public utility companies and public employments. For Schedule 1 industries the awards amounted to \$4,652,527, while for Schedule 2 they amounted to \$1,168,825. Medical aid, amounting to \$988,487, formed a little over 21 per cent of the total for industries in Schedule 1.

In Schedule 2 industries medical aid is paid by employers directly, and the amount so paid does not appear in the figures given for awards.

Estimated pay rolls for the year amounted to \$411,013,000 (24,492 employers), as compared with \$395,619,000 reported in 1925 (25,681 employers). Administrative expenses for the year were \$277,939, as compared with \$269,587 in 1925. There was a decrease in the ratio of administration costs to total benefits awarded, being 4.77 per cent in 1926 as compared with 4.84 per cent in 1925 in Schedule 1, while in Schedule 2 the decrease was from 4.14 per cent in 1925 to 3.44 per cent in 1926. The average assessment rate (provisional) in Schedule 1 for the year was \$1.25 on every \$100 of pay roll; the average for the life of the act (12 years) was \$1.11.

There are 24 classes of industries embraced in Schedule 1, each maintaining its own fund. The largest amount of premiums collected on provisional assessments was from mining and explosives, \$477,782; lumbering coming second with \$438,669; and building third with \$343,049. Compensation, pension reserves, medical aid, and other expenditures and expenses amounted in the case of mining and explosives to \$664,618; lumbering, \$584,224; and building, \$468,517.

Sixteen of the 24 classes of industries show a deficit for the year, the total deficit (provisional) being \$214,821; as there was a balance from prior years of \$185,201, the net result is a deficit (provisional) of \$29,620 over all income and credits.

In Schedule 2 industries each employer is individually liable for accidents to his workmen. Of the \$1,168,825 awarded in compensation during the year in this class, Dominion Crown cases involved the largest amount, \$440,225; steam railroads following with \$368,784; and municipal corporations coming next with \$193,399. Of the total amount awarded \$671,619 was for pensions and \$497,206 for other compensation.

Accident data for the year 1925 show total numbers, frequency, rates, nature, cause, duration, sex, marital conditions, etc. Cuts, lacerations, and punctures were most numerous in temporary disability cases (9,156), followed by bruises and abrasions (6,561), these two representing more than one-half of the total 26,040 cases. Machinery was responsible for 9,868 cases out of a total of 50,905, or 19.39 per cent of all cases.

The average time loss in temporary total disability cases was 20.86 days, in permanent disability cases, 92.92 days. An average of 7.04 days intervened between injury and death in fatal cases. The average age in all cases was 35.24 years, and the average weekly wage, \$22.29.

Bricklayers' Union Relief Fund¹

THE mortuary benefit of the Bricklayers, Masons, and Plasterers' International Union was inaugurated in 1910 and its relief fund in 1914. During the period from 1910 to July 1, 1926, mortuary and relief benefits paid by the union have aggregated \$10,044,250.

The annual disbursements for such benefits for the fiscal years 1915 to 1926, inclusive, were as follows:

Fiscal year	Relief	Mor-tuary	Fiscal year	Relief	Mor-tuary
1915	\$217, 610	\$217, 524	1922	\$485, 835	\$229, 486
1916	277, 564	222, 749	1923	608, 698	273, 135
1917	371, 170	271, 380	1924	783, 296	270, 555
1918	295, 935	205, 137	1925	858, 287	292, 105
1919	414, 495	296, 696	1926	955, 008	318, 311
1920	426, 940	224, 492	Total	6, 138, 348	3, 055, 001
1921	443, 510	233, 431			

Based on payments made since the close of the fiscal year 1926, it is estimated that the total for relief benefits alone in 1927 will amount to more than \$1,100,000.

¹American Labor World, New York, May, 1927, p. 24.

LABOR LAWS AND COURT DECISIONS

Basis for Workmen's Compensation Insurance—Individual or Collective

RECENT court and legislative action in the States of Ohio and Wyoming, respectively, renews the question as to the proper basis for the insurance of the liabilities imposed by workmen's compensation laws. The Supreme Court of Ohio had before it the question of the constitutionality of a provision of the compensation law of that State establishing a surplus fund from which payments might be made to the employees of employers who had failed to secure compensation payments. Injured employees or their dependents in such case may sue the employer, or alternatively may file an application for compensation under the terms of the law. Any award made in accordance with such application is obligatory upon the employer, and on failure to pay, the attorney general of the State is to institute a civil action for the collection of the award as a liquidated claim for damages. Payments made from the fund are therefore to be recouped from the responsible employer if possible, but if not, the award is to be paid from the surplus accumulated by a special segregation of moneys from the premiums collected.

In the instant case (*State ex rel. Williams v. Industrial Commission*, 156 N. E. 101), an employee of an employer of five or more workmen, and therefore eligible to come under the law, but who had neither subscribed to the State fund nor arranged for self-insurance, claimed compensation for injuries, for which an award was made. Later the industrial commission reported the employer insolvent, and, on the ground that the fund could not be recouped from him, declined to continue the payments under the award. Action was then brought to force the commission to require a continuance of payments to the injured man. The commission's contention was that, in the absence of contributions by the delinquent employer, solvent and conforming employers would be burdened with the duty of compensating the injured workman of the insolvent and noncontributing employer. The validity of such a provision was sustained by three of the seven judges, four holding that compensation can not be paid out of the surplus fund in such a case, and that the amendment undertaking to impose such a burden was unconstitutional and violative of the due process clause of the Federal Constitution. While, therefore, there was an adverse majority of four to three, the constitution of the State requires the concurrence of six judges before a law can be declared void in a case originating in the Supreme court. The invalidity of the law was therefore not established, under the terms of this constitutional provision.

In support of the constitutionality of the act it was said that, conceding that there was some diversion of the fund for the compensation of insolvent employers, "so far as the record before us discloses the amount that may be taken from the whole body of con-

tributing employers may be comparatively insignificant." In this connection citation was made from the opinion of the United States Supreme Court in *Noble State Bank v. Haskell* (219 U. S. 104, 110, 31 Sup. Ct. 186), where it was declared that "it is established by a series of cases that an ulterior public advantage may justify a comparatively insignificant taking of private property for what, in its immediate purpose, is a private use." The entire structure of the State workmen's compensation act would be in danger, it was said, if only those who contribute to and create a fund may participate in its benefits. "The pole star of our constitutional provisions relating to workmen's compensation is the welfare of its workmen." An employer entering business in 1927 may have employees suffering injury early, but compensation is payable from an established fund, created before the employer started operations. The employer's insolvency or failure to pay premiums does not deprive his employee or the dependents of the latter of the right to compensation. (*Industrial Commission v. Madden*, 115 Ohio St. 130, 152 N. E. 662.) The employee has no authority to sue for the collection of premiums; The State has. The fund does not belong to the employers, and no individual employer's property is taken. "The employer, having paid his premium to the State, has acquired not only insurance, but has also obtained immunity from suit—has obtained his quid pro quo—meanwhile the fund is held in trust by the State, solely for the benefit of injured workmen and their dependents."

As already stated, this opinion being concurred in by two judges, becomes the law of the State in sustaining the statute as amended.

On the same day with the foregoing case the court passed upon a different aspect of the question of the right of the employee to payments regardless of the solvency of his employer. However, the originating cause was here an effort to collect an additional award assessed by the industrial commission against an employer who had failed to comply with a specific requirement of the law of the State, such failure being the proximate cause of the injury. Under the law as it stands the commission may assess an additional amount, not less than 15 nor more than 50 per cent of a normal award in such a case. Here the maximum increase was allowed, but an attempt to recoup by extra assessments on the employer failed by reason of his insolvency. The commission's refusal to pay awards unless the fund should be thus recouped led to proceedings in mandamus to compel the payment. The mandamus issued in this case on the concurrence of four judges, three dissenting. It was pointed out that the principle involved here had been conceded by the attorney general of the State in the case *Slatmeyer v. Industrial Commission* (155 N. E. 484), in which he said that "The employee or his dependents have become entitled to and have received the compensation, regardless of the ability to recoup the fund." The court pointed out that to restrict benefits to employees only of careful and cautious employers and withhold it from those who might be careless and subsequently become insolvent "is logically untenable. Its infirmity lies in contrasting the respective rights of solvent and insolvent employers and ignoring the rights of the dependents of killed workmen." While a contributing employer may never have an accident in his establishment, he has yet had the benefits of the insurance.

Some of the employers who have contributed in the past have retired from active operations while others have entered the field. To attempt to allocate individual liabilities and benefits would imperil the whole system of workmen's compensation. "The burdens of the act are placed, not upon the employer, but upon the industry and its hazards; and they are so placed under the exercise of the State's police powers." (State ex rel. Rudd *v.* Industrial Commission, 156 N. E. 107.)

In contrast with this position is a provision of the law of the State of Wyoming which requires the State treasurer to keep a separate account of each employer contributing to the State fund, the object being to encourage care on the part of the employers, "and to the end that each employer shall compensate all injuries to the workmen of such employer and not those of other employers." The observance of this requirement leads to a large amount of detail, 127 of the 164 pages of the report of the workmen's compensation department of the State for the year 1925 being devoted to statements of individual accounts of employers with the State fund. A measure of feasibility is apparent by reason of the fact that the report named covers the tenth year of the law, though a tremendous contrast exists between the number of persons covered by the Wyoming statute and those under the law of the State of Ohio. However, the question is one of principle at least as much as of practicability.

In line with its individualistic attitude, the legislature of Wyoming at its recent session amended the law so as to require additional payments, other than premiums, by each employer insured in the State fund, such payments being termed a "service and policing charge." The amount in the fund to the employer's credit does not relieve him of the duty of paying this charge; but "no employer who pays for any calendar month 4 per cent of the moneys earned by each of his employees * * * during such calendar month shall be compelled to pay a service and policing charge for such month."

A schedule of charges is established, not on a percentage basis, but arbitrarily, and disclosing a wide range of percentage variation. Where the monthly payment is less than \$10, the charge is \$2 per month. If \$10.01 and not more than \$20, the charge is \$3, etc. Where the payment ranges from \$100.01 to \$250 a service and policing charge of \$50 is assessed, while a premium payment of \$2,500.01 up to \$5,000 is to be accompanied by a service charge of \$175. On the percentage basis these charges range from 3½ per cent where \$5,000 premiums are paid, up to practically 50 per cent where the premium payment is just in excess of \$100. The percentage ranges for the payments, \$20, \$30, \$40, etc., up to \$100 are respectively, 15, 17, 19, 20, 25, 29, 31, 33, 35, while for \$250 the service charge is 20 per cent of the premium payment.

It would seem probable that such variations would be regarded by a court as the result of arbitrary and improper classification rather than of an equitable distribution of the burdens of administration.

The Kansas Legislature likewise incorporated an amendment in the new law of that State, obviously looking toward individual rather than collective responsibility, in its authorization of the assessment of a fee to be collected by the administrative commission for filing agreements and final releases, in the amount of \$1 each;

while in each claim in which testimony is introduced before the commission, it may tax a fee not in excess of \$25, to be apportioned in its discretion. This is an unusual if not unique proceeding, and indicates a purpose to impose the burden of administrative costs on the parties mainly concerned rather than to assume them as a matter of public interest and welfare.

On the side of the collective or general social responsibility idea may be cited those provisions of various State laws which establish second injury funds and/or rehabilitation funds by contributions from employers in cases where an employee is accidentally killed leaving no dependents, or from other sources. Here, clearly, the contributing employer is making provision for the employees of others, and such a provision of law has been declared valid by our highest courts, thus sustaining the collective and social idea as against the distributive and individualistic basis.

Luxemburg Law on Vacations with Pay¹

ACCORDING to an act of December 6, 1926, all workers in Luxemburg except in certain employments and establishments have a right to an annual holiday with pay. Ordinarily this vacation is to fall within the 6 months between April 1 and November 1, unless a formal exemption is granted by the factory inspector in case of necessity. By agreement, however, between the employer and the employee, the annual holiday may be taken at any time.

The duration of the holiday is based on the length of continuous service with the same employer, according to the following schedule: Four days after 1 year, five days after 5 years, seven days after 10 years, and twelve days after 20 years. A holiday of 7 days is provided for workers and apprentices under 18 years of age who have been continuously at work for the same employer for one year.

The provisions of this act, however, do not include agricultural, viticultural and silvicultural workers, home workers, domestic servants, or establishments usually employing 20 workers or less, with the exception of workers under 18 years of age and those employed in slate works and mines.

Hours lost through compulsory vacations may be made up by the employer by recourse to overtime provided it does not exceed 2 hours a day or 30 hours a year per worker.

Any agreement which prejudices the privileges under this law is null and void. An exemption from the provision may be had "in undertakings where the relations between employer and workers are regulated by a collective agreement," and the conditions with which the collective agreement must comply are to be determined by a public administrative regulation. The Luxemburg Chamber of Labor reports that a grand ducal decree on this point is to be issued by the Government, provided such point is not already covered by present legislation.

¹International Labor Office. Industrial and Labor Information. Geneva, May 23, 1927, pp. 316, 317.

Law Providing for Compulsory Arbitration of Labor Disputes in Norway¹

ALAW has recently been passed in Norway, over the determined opposition of the labor groups, providing for compulsory arbitration of labor disputes. The measure comes into force immediately but is effective only until August 1, 1929.

Labor disputes had, prior to the passage of the act, been in effect in several industries for some two and one-half months. Protracted negotiations proved fruitless. Matters came to a deadlock, with employers threatening a general lockout and the workers a general strike. The law was passed to deal with this situation.

The measure is to be invoked only in cases where the public interest involved is of sufficient magnitude, and where mediation has failed. Having decided that the case shall be submitted to arbitration, the Government may also require that work be continued, pending settlement of the dispute. Wages and hours are to remain unchanged while the arbitration is proceeding, unless the parties agree otherwise or special provision is made by the arbitration tribunal at the request of the parties.

An arbitration court is provided for, consisting of five members—one member elected by the trade-union involved, one by the Norwegian Employers' Association, two members appointed by the Norwegian Government, and a permanent chairman also selected by the Government. In case of failure by either of the parties to appoint its delegate, such place is to be filled by a person selected by the Government.

Decisions of the court are to be valid for not to exceed two years. In case material changes in conditions affecting wages take place (as, for example, a rise or fall in cost of living, in business conditions, etc.), the case may be reopened upon request of either party after six months from the date of the decision.

¹Consular reports of May 12 and May 20, 1927, from American Consul at Oslo, Norway.

WORKERS' EDUCATION

Workers' Education in Michigan

AS THE result of a discussion at the February, 1926, convention of the Michigan Federation of Labor, a permanent education committee for that State organization was appointed. In the April, 1927, American Federationist, Mr. Edwin E. Linton, third vice president of the Michigan Federation of Labor, traces the development of workers' education in his State.

During 1926 the education committee's principal endeavor was to arouse, through correspondence, an interest in adult workers' education in the different city federations and councils and in planning and discussing questions of the organization, the methods of conducting, the development, and the financing of group study classes. The results of this campaign by correspondence, however, proved so discouraging that the committee had about decided to request the State federation for financial assistance for a personal canvass by the committee. However, after the committee members had attended the conference of the Workers' Education Bureau at the Detroit convention of the American Federation of Labor and after a subsequent discussion at Ann Arbor University, it was decided to start an experimental study class. The Ann Arbor Trades Council agreed to finance a study group on the history of the American labor movement under the guidance of Professor Goodrich, who is lecturing on labor subjects in the university.

During a five-weeks course of one night a week the class attendance averaged 30. After the opening night the discussion became "quite general and lively." This course was followed by a course of 10 weeks under the direction of Professor Bigge on "Wages and their control." Early in 1927 the committee on education was contemplating a personal visit to each city federation or council to supervise an aggressive movement for workers' education throughout Michigan.

At the most recent convention of the State Federation of Labor there was a large amount of literature for distribution on workers' education, and from remarks made at the tables Mr. Linton concludes that the interest in workers' education is widespread "and we can depend on the movement in general to support any program we may plan."

Mr. Linton holds that a few earnest trade-unionists in any community could make arrangements with some teacher or professor of labor subjects in the extension division of any university or college who would be willing to give some attention to the formation of workers' study classes and conduct them ably for a nominal fee.

Prof. John R. Commons of the University of Wisconsin, in an article in the May, 1927, issue of the American Labor World, is in agreement with Mr. Linton in regard to the willingness of higher edu-

cational institutions to further workers' education. The professor says in part:

I believe that State universities and private universities, especially those that have university extension departments, would quite willingly cooperate with State Federations of Labor in arranging these summer short courses. It would not be difficult to work out the details of lectures, conferences, and subjects for discussion. I can think of such subjects as trade-union administration, the best methods of collective bargaining, the best methods of investigation and newspaper publicity, and so on. These could be supplemented during the year by night classes, conducted in cooperation with the university extension department.

I am thinking here only of actual workers who expect to return to the labor movement. There ought also to be a place for a large number of university graduates as employees, not leaders, of State and local unions, partly as teachers, partly as investigators, statisticians, and so on. These would be useful in workers' education, as has already been demonstrated by a few organizations.

LABOR ORGANIZATIONS

Objectives of American Labor Movement¹

THE major objectives of the labor movement in the United States are outlined in a recent address by Matthew Woll, a vice president of the American Federation of Labor and president of the International Photo-Engravers' Union.

The labor movement in this country, he states, seeks to unionize and federate the workers of each trade, not wholly but primarily, to use their economic power, their power to produce, to render service, and to consume "as a means of wresting from industry and those in control of industry, a constantly larger and larger share of the joint results of capital and labor." The method selected for the accomplishment of this is collective bargaining and collective agreement.

When parties fail to agree both parties are free to do as they please, the employer to dismiss workmen, workmen to give up their employment. When that results there follows what is known in general and popular terms as the "strike" or the "lockout," which, after all, is nothing more or less than workmen or employers exercising their freedom of contract to enter or not to enter into the employment of another or to accept or to refuse employment to another.

Collective agreements become "trade laws," providing minimum standards of wages, fixed schedules of working hours, and various other conditions of employment.

In explanation of American labor's concentrating on its economic rather than on its political power, Mr. Woll cites the great difficulty of operating politically in a country where there are so many political divisions of power and where there is such uncertainty in maintaining the validity of remedial measures. At the same time, he states that organized labor has found it necessary to use its political power in the respective States and also in the National Government, not so much as a means for the enacting and enforcing of laws intended for particular trades or organizations, but more for legislation designed for a fairer social order for the people as a whole. In this connection he declares "The record of American labor, in so far as legislative action is concerned, is a splendid one."

Mr. Woll emphasizes the fundamental difference between the American labor movement and those labor movements abroad which have as their final goal the tearing down of the existing social fabric and the substitution of socialism or communism. "Here in America," he says, "we accept the present social order and seek to build upon and within that order, making constant progress * * * and thus by progressive and practical evolution usher in a brighter and happier day. After all, we are more concerned with results than formulas."

According to Mr. Woll, American labor is not seeking to dominate all other classes but is striving for "equal opportunity to work out

¹ The American Photo-Engraver, St. Louis, June, 1927, pp. 656-663.

with all the other classes in society, the common good and the common weal."

In its efforts to advance the general communal life the American labor movement does not condemn capital but undertakes "to learn a lesson from capital and the activities of employers." American labor is beginning to understand what a tremendous factor the workers' purchasing power is in industrial life, and is now endeavoring to organize that power. With the organization of labor's productive and consuming powers the workers "need not worry who owns capital."

Referring to the constant growth of wage earners' savings in this country and to the fact that such savings are to a large extent in the keeping of those who are not so deeply concerned over labor's problems, Mr. Woll calls attention to the trade-union banking and investment institutions which show that labor is now undertaking to gain control of its financial reserves. Special mention is also made of the latest venture of the American labor movement, that into the insurance field.

Toward the close of his address, the speaker expresses himself as strongly in favor of the early renewal of the affiliation of American labor with the International Federation of Trade Unions.

Structural Variety in Union Organization

THE attitude of the American Federation of Labor in regard to the need for different structural plans for union organization is given in an editorial in the May, 1927, American Federationist, which reads as follows:

The union is the agency through which workers function in the councils of the industry. The union structure, therefore, must mesh into other organizations and procedure of industry. This makes it impossible to prescribe any single formula for union organization. Where work is organized on the job or unit basis and each worker completes his product, manipulative skill is what establishes the value of the worker. For such industries, the craft becomes the basis of union organization. But when machinery or machine tools replace hand tools and hand work, much or all of the old skill is no longer used and the worker has to develop new skills in the control of his machine and the use of materials. Because machinery has not the adjustability of the human worker, the job is divided into a number of operations. As the operations performed by the workers in the shop together make up the completed product, there comes a new work interdependence among the workers which, expressed through adequate organization, becomes appreciation of the unity of the shop. Under such conditions the shop or plant naturally constitutes the union basis.

The American Federation of Labor is not committed to any single type of union structure. We leave that to the judgment of the workers, who best know the situation they must meet. In those industries where processes and machinery have been standardized as mass production necessitates, craft skill has disappeared from the fabrication and workers are finding new groupings for union organization. The important thing is the continuing necessity for labor organization and finding cohesive ties that will make the union constructive and permanent.

Labor Movement in Mexico

MORONES of Mexico, by J. H. Retinger (London, 1926), is the subject of one of the first histories to be written of the labor movement of Mexico.

The writer points out that from the sixteenth century until late in the nineteenth no organization of any kind existed among Mexican labor, and worker's associations similar to those existing throughout Europe were entirely unknown. The situation of the Mexican worker in the twentieth century is likened to that of the European worker when the disappearing feudalism wiped out the guild and other associations while no new organizations were formed to replace them.

In organizing the labor movement in Mexico the first leaders had not only the practical and material handicaps such as tradition, ignorance, and lack of preparation on the part of the masses, but also the difficulties of choosing among many doctrines the one suitable to Mexico's peculiar conditions. Mexico had no socialistic or even liberal intellectual movement as had practically every other country of the world. The Mexican intellectuals were more absorbed in abstract scientific work or in advancing their own interests. The writer emphasizes the fact that no intellectual during the first 20 years took any real interest in social questions from the worker's viewpoint. The early leaders were required to experiment, study, and learn forms of organization, without any help or encouragement. Furthermore, the number of capable and responsible leaders for the organization work was small.

In 1918 the first National Workmen's Congress was held in Saltillo, at which the leading spirits of the labor movement invited the labor representatives to form one big federation of labor unions, the result of which was the formation of the "Confederacion Regional Obrera Mexicana," popularly known by its initial letters "C. R. O. M."

At this time the official membership of the organization did not exceed 40,000 and the affiliated unions were weak. It was a difficult task to bring the masses together and a still more difficult one to train them to contribute regularly to their local unions and to live up to their obligations.

In June, 1919, the C. R. O. M. congress met in Zacatecas with better results not only from the standpoint of membership, which had increased from 40,000 to 70,000, but also from the increased strength of the inner organizations. Some of the most important industrial unions as, for example, the miners' organization, were persuaded to join the Confederacion.

To-day the Mexican labor movement has amassed both a very large membership, numbering over a million in a population of fifteen million, and very great power, according to the writer. As to Mexico's future problems and needs he states:

For Mexico, one of the richest countries of the world—ruined by civil war—in the clutches of foreign capitalism, the chief problem is to improve the general economic production so as to better both directly and indirectly the standard of living of her workers and to develop the purely national production under the control of national and, if possible, labor capital.

Mexico's need to-day for foreign manufactured machinery and for highways, for irrigation, for railroads, for transport facilities, etc., which can only be developed at the present time by foreign capital, is so enormous that capital from abroad must be brought in immediately. Even more than in Soviet Russia must labor in Mexico to-day compromise with capital in order to live.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States, May, 1927

STRIKES and lockouts in the United States beginning in the month of May, 1927, in so far as reports thereof have been received by the bureau are shown in this article. Disputes involving fewer than six workers and those lasting less than one day have been omitted where information on this point is reported.

In presenting these figures, it is important to note that the bureau has no machinery for the prompt and full reporting of strikes and lockouts, but depends largely upon newspapers, trade journals, and labor periodicals for the preliminary reports of disputes. These preliminary reports are then followed up by correspondence, and any necessary revision is made. For the reasons mentioned the data here presented do not pretend to be absolutely complete or fully accurate. It is believed, however, that practically all of the more significant strikes and lockouts are recorded, and that the information presented is sufficiently accurate to give a fair picture of the situation in the United States in the matter of strikes and lockouts.

The Bureau of Labor Statistics solicits the cooperation of employers, labor organizations, and other interested parties in making this compilation of industrial disputes as comprehensive and as accurate as possible.

Strikes and Lockouts Beginning in May, 1927

THE table following shows the number of strikes and lockouts beginning in May, 1927, in comparison with March and April, and also the number of persons involved, to the extent that reports on this point have been received.

STRIKES AND LOCKOUTS BEGINNING IN MARCH, APRIL, AND MAY, 1927

Month	Number of strikes and lockouts ¹	Disputes in which number of employees directly involved is known ¹		
		Number of strikes and lockouts	Number of employees involved	Average number of employees per dispute
March, 1927	77	60	11,837	197
April, 1927	93	61	222,903	3,654
May, 1927 ²	100	74	20,535	273

¹ Excluding those involving fewer than six persons.

² Figures subject to revision.

Classification of Strikes and Lockouts by Industries and by Number of Persons Involved

THE statements following show the distribution of the reported strikes and lockouts beginning in May, 1927, by industries or occupations and, in so far as information is available, the disputes classified by number of workers directly involved.

Strikes and lockouts, by industries

	Disputes
Building trades	47
Metal trades	2
Bakers	3
Barbers	2
Clothing industry	10
Theater and motion-picture employees	3
Mining, coal	9
Chausseurs and teamsters	3
Textile industry	9
Miscellaneous	12
Total	100

Strikes and lockouts, by number of workers

	Disputes
6 and under 20 workers	10
20 and under 100 workers	25
100 and under 500 workers	26
500 and under 1,000 workers	6
1,000 and under 5,000 workers	7
Total	74

Principal Strikes and Lockouts Beginning in May, 1927

LABORERS, Connecticut.—On May 4 about 1,000 laborers in the building trades of Hartford struck for a wage increase from 55 and 60 cents an hour to 65 cents an hour. This strike was abandoned by May 14.

Millwork carpenters, Illinois.—A successful strike of about 1,200 millwork carpenters in Chicago against a wage reduction from \$1.20 an hour to \$1.10 an hour began on May 9 and was over by May 28.

Coal miners, Pennsylvania.—The Maxwell Colliery of the Lehigh & Wilkesbarre Coal Co. was affected by a strike of 1,265 workers beginning May 11 against the discharge of a driver boy. The exact duration of this disturbance has not been reported, but the trouble was referred to a committee and the men had resumed work by May 21.

Coal miners, Pennsylvania.—An unsuccessful strike of 1,408 employees of the Susquehanna Collieries Co. near Glen Lyon occurred on May 10 on account of dissatisfaction with a hired clerk. The grievance was dropped and the men resumed work on May 11.

Coal miners, Pennsylvania.—The miners employed by the Mocan-aqua Colliery of the West End Coal Co. became involved in a dispute with their employers as to the proper time for the night shift to enter the mines, and quit work during the week ending May 21. The strike was not in conformity with the agreement and the men decided to return to work on May 23, but when they undertook to do so they found that the mines had been closed down indefinitely by the company. About 1,000 men were involved. Operations were resumed on June 14, with the understanding that the workers would comply with all provisions of the agreement between miners and operators.

Principal Strikes and Lockouts Continuing into May, 1927

BITUMINOUS coal strike.—No important changes have taken place since our last report in the suspension of organized bituminous coal miners. Conferences have occurred from time to time in the various

districts with a view to reaching an agreement satisfactory to both sides, but these have been without tangible results, except in negotiations between members of the Southwestern Interstate Coal Operators' Association and representatives of districts 14, 21, and 25. At a general conference of these parties a tentative agreement upon working conditions was effected at Kansas City, Mo., on May 11, but this agreement is ineffective until a wage scale has been agreed upon. The report of the subscale committee which was ratified by the general conference read as follows:

We, your subscale committee, to whom was referred on March 17 the operators' proposal and the miners' proposal for a contract, beg leave to report that we have had same under consideration and that being unable to agree upon the adoption of either proposal in its entirety, we beg to report that we have agreed upon and adopted the following resolutions and sections for a contract:

(1) That the operators' substitute resolution offered in subcommittee March 17 be adopted. This resolution is in lieu of the operators' and miners' first resolutions and reads as follows:

"We propose an agreement for districts 14, 21, and 25 for a period of two years from April 1, 1927, embodying all of the written terms of the 1924 contract, including all decisions, agreements, and rulings of the Interstate Joint Commission, commissioners, and district officers, made during the 1924-1927 contract period that are in writing, together with such changes or additions as may be mutually agreed upon, with the exception of the scale of wages as to day and monthly men, tonnage, dead-work, and yardage rates, which shall be made a matter of negotiation, the scale committees representing the miners and operators to continue in session to that end.

(2) That a resolution of March 31, offered in subcommittee, providing for the consideration of interpretations and fundamental principles underlying certain decisions of the Interstate Joint Commission and with reference to rules of procedure, shall be adopted and immediately taken up for final determination and when final conclusions have been determined the same shall be for guidance of the Interstate Joint Commission in the future handling of cases and rendering decisions under the contract. This resolution reads as follows:

Resolved by the subscale committee of miners and operators, That it is agreed that after the adoption of the operators' substitute resolution of March 17 the joint scale committee shall give consideration to the interpretation of the fundamental principles underlying certain past decisions of the Interstate Joint Commission, also to certain rules for the government and procedure of said commission, to the end that certain fundamental principles and rules of procedure may be determined for the guidance of the Interstate Joint Commission in the handling of the future cases and rendering decisions under the contract.

(3) That negotiations on the wage scale be taken up, each side presenting such basis for negotiations for a wage scale as they may elect.

(4) It is understood and agreed that the first and second paragraphs of this recommendation shall not be effective until a wage scale has been agreed upon, at which time the resolutions above referred to will then become in full force and effect.

Plumbers, New York.—The strike of plumbers in Brooklyn which began on April 1 has terminated, but the lockout of plumbers and helpers in Queens and Richmond remains in effect, as the general lockout which was declared in Greater New York on April 27 by the Building Trades Employers' Association against journeyman plumbers and helpers has not been withdrawn except as to Manhattan and the Bronx. In Brooklyn the master plumbers began to employ nonunion workmen on May 31, when work was resumed, according to press reports, on 15 buildings.

On May 26 supreme court Justice May in Brooklyn denied the application of the president of the Queens local for an injunction to restrain the building trades employers' and the master plumbers' associations outside of Brooklyn from continuing the lockout. The

Queens plumbers contended that the lockout in Queens Borough was illegal because they had no part in the Brooklyn strike and were working under "an agreement which does not expire until 1931." The employers held that the Queens plumbers had broken their agreement by refusing to work on jobs in Brooklyn where the local had called a strike. Justice May said:

The lockout on the part of the employers was the inevitable result of the action on the part of the employees. Equity will not assist those who by indirect violation of their agreements, or by such means attempt to secure that to which, under ordinary circumstances, they would not be entitled, any more than it would aid them in such an attempt if made by direct action.

It was the intention of the parties (the employers) that the wages of the Queens employees should be no less than the amount paid in any of the other boroughs, but not that the employers should stand idly by while their employees were aiding and assisting in compelling payment of higher wages in Brooklyn, thereby entitling themselves to share in such benefits.

On June 6 a sympathetic strike began of the workers in some other crafts in the building trades of Brooklyn involving 600 men, but it was promptly halted by the Building Trades Council upon the ground that it was a violation of their agreement, which does not expire until January 1 next, and these men were ordered to resume work on June 7. This action had the effect of isolating the striking Brooklyn plumbers, and after a struggle lasting two and one-half months the strike of 1,500 plumbers in Brooklyn was settled on June 14 when the union agreed to arbitrate its demands for higher wages and a reduction of hours. Settlement by arbitration after resumption of work had been proposed by the employers soon after the strike began but was rejected by the men. It is understood that the present settlement provides for a conference between the Brooklyn Master Plumbers' Association and Local 1 of the plumbers' union. If the conference fails in affecting a settlement, resort will be had to arbitration by a committee of three, the union naming one member, the employers one, and these two choosing an impartial umpire. Under this arrangement the plumbers resumed work, it is understood, on June 15.

The plumbers' helpers in Brooklyn returned to work with the plumbers, according to press reports, and are receiving from \$4.50 to \$6 per day instead of the \$4 wage prevailing before the strike, but their other demands were not granted.

Conciliation Work of the Department of Labor in May, 1927

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the conciliation service, exercised his good offices in connection with 57 labor disputes during May, 1927. These disputes affected a known total of 29,706 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly affected.

On June 1, 1927, there were 55 strikes before the department for settlement, and, in addition, 14 controversies which had not reached the strike stage. The total number of cases pending was 69.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, MAY, 1927

Company or industry and location	Nature of controversy	Craft concerned	Cause of dispute	Present status and terms of settlement		Duration	Men involved
				Begin-ning	End-ing		
Building trades, Syracuse, N. Y.	Strike.	Common labor	Asked 85 cents per hour	Pending. Some contractors have signed contracts.	1927 May 2	1927	1,500
J. J. McWilliams Co., Syracuse, N. Y.	do	do	do	Adjusted. Allowed 72½ cents per hour; after July 1, 75 cents.	do	May 13	80 175
White Construction Co., Syracuse, N. Y.	do	do	do	do	do	May 13	45 130
Alibrandi Bros., Syracuse, N. Y.	do	do	do	do	do	do	60 15
Detroit Construction Co., Syracuse, N. Y.	do	do	do	do	do	May 12	40 30
Louis Fidler Co. and others, Syracuse, N. Y.	do	do	do	do	do	do	130 ***
Painters, Syracuse, N. Y.	do	Painting	Asked increase from \$1.10 to \$1.25 per hour. Asked wage increase; 5-day week. Baking plant discontinued.	Unable to adjust. Nonunion labor employed. Adjusted. Increase to laborers and engineers.	Apr. 1	do	400 ***
Building trades, Seattle, Wash.	Controversy	Building	do	Adjusted. Bakers employed by same company at Stamford, Conn.	Feb. 1	May 11	3,700 3,300
Federal System of Bakeries, White Plains, N. Y.	do	Baking	do	Unclassified. Adjusted before arrival of commissioner; sliding scale adopted.	May 1	May 30	5 ***
Painters, Albany, N. Y.	do	Painting	do	do	do	do	130 ***
Plumbers, Albany, N. Y.	do	Plumbing	Asked \$12 per day. Wage cut 5½ cents per yard.	Unclassified. Compromised before arrival of commissioner.	Apr. 27	May 4	200 50
Sadonia Mills (Inc.), Myslie, Conn.	do	Silk weaving	do	Adjusted. Allowed \$13 per day minimum.	May 2	June 1	112 ***
Plasterers, brick and stone masons, Greenwich, Conn.	do	Building	do	Adjusted. Lathers returned.	do	May 16	70 ***
Lathers, Gary, Ind.	do	do	do	Adjusted. Allowed \$12.50 per day; on May 1, 1928, will receive \$13 per day.	do	June 8	840 ***
Electricians, Newark, East Orange, and Montclair, N. J.	do	Electric work	do	do	do	do	107 167 ***
Carpenters, Norristown, Pa.	do	Building	Asked \$1.25 per hour. Asked \$1.12½ per hour.	Unable to adjust. Adjusted. Allowed 90 cents per hour minimum.	do	May 23	107 ***
Paper hangers, painters, and decorators, Allentown, Pa.	do	do	do	do	do	May 9	167 ***
Building laborers, Worcester, Mass.	do	Plumbing	Wages and union recognition. Number of helpers and cutting of pipe.	Unable to adjust. No terms. Pending.	May 1	June 5	550 ***
Plumbers, Gary, Ind.	do	do	do	Proposed wage cut from \$1.20 to \$1.10.	May 2	May 2	230 ***
Chicago Mill Work Association, Chicago, Ill.	do	Carpenter work	do	Adjusted. Returned at \$1.20 per hour; negotiations to continue.	do	May 28	1,340 ***
Building laborers, Greenwich, Conn.	Strike	Building	do	Adjusted. Returned without increase—\$6.50 per day.	do	May 10	750 ***
Retail stores, Brooklyn, N. Y.	do	Busheling	do	Unclassified. Demands withdrawn, and men returned.	Mar. 26	May 13	12 ***

CONCILIATION WORK OF THE DEPARTMENT

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Carpenters, Reading, Pa.	Building	Asked \$1.12 per hour	Pending.	Many contractors have signed contracts.	May 9	350
Newark Silk Co., Wilkes-Barre, Pa.	do	Wage cut of 5 per cent.	Adjusted.	Returned on company's terms.	May 4	300
American Bottle Co., Streator, Ill.	Machine work	Asked wage increase	Pending.	(1)	May 5	110
Hod carriers, Greenwich, Conn.	Building	Asked increase from \$8 to \$9 per day.	Adjusted.	Allowed \$8.50 per day	May 2	100
Sheet-metal workers, Indianapolis, Ind.	Metal work	Renewal of agreement.	Adjusted.	Arbitration allowed 7½ cents per hour increase.	April 1	6
H. Wetter Stove Co., South Pitts- burgh, Tenn.	Molding, polishing, and mounting.	Plants closed.	Pending.	Company ordered houses vacated.	(1)	300
Bakers, Hazleton, Pa.	Baking	Wages and hours.	Adjusted.	Increased pay; 8-hour day; agreement.	May 2	700
Clothing-store clerks, Philadelphia, Pa.	Clerking	Working conditions	Pending.	Considerable feeling manifested on both sides.	do	125
R. S. Newbold & Sons, Norristown, Pa.	Machine and boiler making.	(1)	do	(1)	do	23
Lehigh & Wyoming Valley Coal Co., Dupont, Pa.	Mining	Asked increase for loading rock.	Adjusted.	Returned; district board to settle.	May 3	107
Susquehanna Coal Co., Glen Lyon, Pa.	do	Nonunion clerk employed.	Adjusted.	Union had no jurisdiction.	May 10	136
Lehigh & Wilkes-Barre Coal Co., Ashley, Pa.	do	Discharge of boy driver.	Adjusted.	Returned; union to fix terms.	May 10	1,408
Building laborers, Asbury Park, N. J.	Building	Asked \$8 per day.	Adjusted.	Returned at former wage until July 16th.	May 2	1,265
[Electricians, Erie, Pa.]	do	Asked \$8 per day for 1927; \$9 for 1928.	Adjusted.	Demands allowed with 2-year agreement.	May 7	1,37
Chicago Flexible Shaft Co., Chi- cago, Ill.	Metal polishing	Asked \$1.10 per hour	Pending.	do.	May 14	1,500
A. D. Katcher Co., New York City.	Children's caps	Attempt to organize work- ers.	Unclassified.	Work continued under nonunion conditions.	May 23	100
Am. Hat Co., New York City.	Hat making	Company refused to pay preva- lling rate for carpenters.	Pending.	Negotiations postponed.	May 2	35
E. & Y. Construction Co., Stamford, Conn.	Carpentering	Asked increase from 65 to 75 cents per hour.	Unclassified.	Agreed to pay prevailing rate of \$12 per day before arrival of commissioner.	Mar. 15	33
Laborers, Westerly, R. I.	Building	Arbitrator awarded 75 cents per hour when employed as helpers.	Adjusted.	Arbitrator awarded 75 cents per hour when employed as helpers.	Apr. 15	130
Florine Silk Co., Paterson, N. J.	Silk weaving	Pending.	Factory closed.	Pending.	Apr. 15	20
Plumbers, Salem, Oreg.	Plumbing	Proposed closing of factory caused weavers to strike.	(1)	do.	May 16	20
Jewish bakers, New Haven, Conn.	Baking	Asked increase from \$8 to \$10 per day.	Unclassified.	Returned without in- crease before arrival of commissioner.	May 1	27
Laborers, Bridgeport, Conn.	Building labor	Asked \$6 per week increase; to \$56, and 8-hour day.	Pending.	Pending.	May 13	350
National Folding Box Co., New Haven, Conn.	Lithographing	Asked increase from \$6 to \$7 per day.	Unclassified.	Returned at \$6.50 per day.	May 1	550
		Asked 44-hour week.	do	Returned without change before arrival of commis- sioner.	May 1	80

1 Not reported.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, MAY, 1927—Contd.

Company or industry and location	Nature of controversy	Craft concerned	Cause of dispute	Present status and terms of settlement		Duration	Men involved
				Beginning	Ending		
Laborers, Hartford, Conn.	Strike	Building	Asked 10 cents per hour increase.	Unclassified. Returned without change before arrival of commissioner.	Pending	1927 Apr. 1	1927 May 9 1,000
Plumbers, Monmouth Co., N. J.	do	Plumbing	Asked increase from \$10 to \$12 per day.	Adjusted. Returned pending settlement.	(1) May 18	May 27 1,425	64 12
Lehigh Valley Coal Co., Wilkes-Barre, Pa.	do	Mining	Asked piece work instead of day work.	Adjusted. Arranged in conference; all return.	(1) May 24	May 24 260	
Buckwalter Stove Co., and Floyd Wills Co., Royersford, Pa.	do	Molding	Working hours.	Adjusted. Accepted \$9 per day and returned.	May 11	May 23 150	
Painters, Cedar Rapids, Ia.	do	Building	Asked Chicago scale of \$13.00.	Unable to adjust. Mine closed indefinitely.	(1) May 26	May 26 972	
West End Coal Co., Mocanoqua, Pa.	do	Mining (anthracite).	Miners objected to hours of work.	Pending.	(1) June 1	June 10 600	1,000
Bakers, Stamford, Conn.	do	Baking	(1) Asked \$13.60 per day and 5-day week.	Adjusted. Allowed \$13.60 per day; $\frac{5}{4}$ day week.	May 11	May 27 100	
Bricklayers, Pittsburgh, Pa.	do	Building	Discharge of employee.	Unable to adjust. Company refused to deal with union.	Apr. 28	June 3 28	
[88] Karp's Pants Mfg. Co., St. Louis, Mo.	do	Clothing	Wage cut 25 to 40 per cent.	Adjusted. Returned for test period.	May 11	May 27 30	
American Pearl Button Co., Washington, Iowa.	do	Button cutting	(1)	Pending.	May 1	May 1 (1)	
New York Restaurant, Wilmington, Del.	Total						19,699 10,007

¹ Not reported.

WAGES AND HOURS OF LABOR

Hours and Earnings in Bituminous-Coal Mining, 1924 and 1926

THIS article presents average hours and earnings for the various occupations in bituminous-coal mining in the United States as of 1926 in comparison with like figures for 1924.

The averages were computed from data covering hours and earnings of individual employees for a half-month pay period and represent conditions as of October, before certain increases (mostly temporary) were made. The data were taken directly from the pay rolls and other records of 556 representative mines of coal companies in Alabama, Colorado, Illinois, Indiana, Kansas, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia by agents of the Bureau of Labor Statistics, except for a very few companies which themselves furnished copies of the records.

The three basic occupations in bituminous-coal mining are those of hand or pick miners, machine miners, and hand loaders. They represent approximately 63 per cent of all wage earners in bituminous-coal mining and are usually paid a rate per ton of 2,000 pounds, run of mine—that is, of coal as mined, including "slack."

Machine miners undercut the coal by machine. Hand loaders shovel the coal into mine cars from the floor of the mine after it has been undercut and blasted from the seam by loaders or shot firers. Hand or pick miners undercut the coal with a pick, blast it from the seam, and shovel it from the floor of the mine into mine cars. Contract loaders, machine loaders, gang miners, and machine miners' helpers are of much less importance in numbers than other loaders and miners.

As loaders and miners are usually paid tonnage instead of time rates, very few companies keep a daily time record for such employees. It was therefore necessary, in order to get hours worked by employees, to make arrangements with officials of the mines to have a special day-by-day record kept of the hours of each employee for a half-month pay period. Employees in all occupations inside and outside the mines, except loaders and miners, are usually paid time rates—that is, rates per hour, day, or week. The time worked by each time worker and the earnings of each time and each tonnage worker are of regular record.

The 1926 data are for 132,949 underground or "inside" wage earners and for 15,206 surface or "outside" employees—a total of 148,155, or 25 per cent of the 588,493 mine workers reported in bituminous coal mining in 1925 by the United States Bureau of Mines.

Table 1 shows for each State and for all States combined, for 1924 and for 1926, the average number of days in which employees worked in a half-month pay period and the average hours and earnings for the miners and the loaders—that is, for employees who actually do the digging and the loading of coal into mine cars. Average hours and earnings for each of seven specified occupations are presented based on (1) time at the face, including time for lunch, and (2) total time in the mine, including time for lunch and time of travel in mine from its opening to the face and return. The term "face" means the surface of the seam of coal on which the men are working or, broadly, their

place of work in the mine. The time for lunch, as reported, was usually about 30 minutes; and the time of travel in the different mines ranged from 10 minutes per day for the mine with the shortest time of travel to 2 hours for the one with the longest time of travel. The average was about 46 minutes per day or 23 minutes each way.

Reading part of Table 1 in explanation of data therein it is seen that 1926 data are presented for 66,414 hand loaders, 20,594 pick or hand miners, 6,055 machine miners (cutters), 882 machine miners' helpers, 694 contract loaders, 306 machine loaders, and 1,065 gang miners. No 1924 data are shown for machine miners' (cutters) helpers as data for these employees were combined with machine miners (cutters) in that year.

Average hours worked in the half month and per start in these occupations were greater in 1926 than in 1924. Average earnings in the half month were greater in 5 occupations and less in 1 occupation in 1926 than in 1924. Average hours per day or per start based on time in mine were more in 5 occupations and less in 1 occupation in 1926 than in 1924, and average earnings per start were greater in 3 occupations and less in 3 occupations in 1926 than in 1924.

In the half-month pay period in 1926, hand loaders worked an average of 9.4 starts or days. The averages in the different States range from 8.3 in Tennessee to 10.3 in Indiana. Based on time at the face, including time for lunch, loaders worked an average of 73.7 hours in 1926. The averages in different States range from 63.5 in Tennessee to 81.2 in Colorado. They earned an average of 77.9 cents per hour based on time at the face, including time for lunch, and the averages by States range from 43.6 cents in Tennessee to \$1.116 in Indiana. They earned an average of \$6.12 per start or day, the average by States ranging from \$3.35 in Tennessee to \$8.80 in Illinois. The figures for other occupations may be read in like manner.

TABLE 1.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS OF LOADERS AND MINERS, 1924 AND 1926, BY SPECIFIED OCCUPATION

Occupation and State	Year	Num- ber of mines	Num- ber of em- ployees	Aver- age num- ber of starts (days) in half- month pay period	Average hours—				Average earnings—			
					In half month, based on—		Per start, based on—		Per hour, based on—		In half- month pay period	
					Time at face, includ- ing lunch	Time in mine	Time at face, includ- ing lunch	Time in mine	Time at face, includ- ing lunch	Time in mine	Time per start	
<i>Loaders, contract</i>												
Alabama	1924	10	72	8.3	70.3	73.8	8.4	8.8	\$0.054	\$0.900	\$67.06	28.03
	1926	17	291	9.4	83.5	91.8	8.8	9.7	.717	.652	50.89	6.35
Colorado	1926	1	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky	1924	8	85	10.2	85.4	90.5	8.4	8.9	.878	.823	74.94	7.36
	1926	26	244	10.8	88.5	94.3	8.2	8.8	.883	.828	78.11	7.25
Tennessee	1926	1	7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia	1924	2	4	10.5	90.8	93.8	8.6	8.9	1,129	1,087	101.88	9.70
	1926	9	103	10.5	86.2	92.9	8.2	8.9	.988	.917	85.17	8.11
West Virginia	1924	4	9	11.8	100.4	106.5	8.5	9.0	1,127	1,063	113.14	9.61
	1926	7	48	9.9	75.0	82.1	7.6	8.3	1,210	1,106	90.83	9.29
Total	1924	24	170	9.5	79.7	84.3	8.4	8.9	.920	.881	74.26	7.82
	1926	61	604	10.1	85.3	92.4	8.4	9.1	.849	.784	72.43	7.16

¹ Data included in total.

HOURS AND EARNINGS IN BITUMINOUS-COAL MINING

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TABLE 1.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS OF LOADERS AND MINERS, 1924 AND 1926, BY STATE—Con.

Occupation and State	Year	Number of mines	Number of employees	Average hours—				Average earnings—			
				In half month, based on—		Per start, based on—		Per hour, based on—		In half-month pay period	Per start
				Time at face, including lunch	Time in mine	Time at face, including lunch	Time in mine	Time at face, including lunch	Time in mine		
<i>Loaders, hand</i>											
Alabama	1924	32	3,060	7.6	64.8	70.4	8.5	9.3	\$0.492	\$0.454	\$31.93
	1926	29	3,070	8.5	74.2	81.4	8.7	9.6	.478	.436	35.47
Colorado	1924	15	1,178	8.0	62.3	66.8	7.8	7.9	.858	.799	53.41
	1926	15	1,099	10.0	81.2	88.3	8.1	8.8	.789	.726	64.07
Illinois	1924	35	10,079	7.6	60.8	66.2	8.0	8.7	1.002	1.003	66.40
	1926	33	11,511	9.4	77.0	85.1	8.2	9.0	1.078	.976	83.07
Indiana	1924	15	2,470	6.0	45.3	47.4	7.5	7.9	1.083	1.034	49.05
	1926	9	1,602	10.3	72.8	78.1	7.1	7.6	1.116	1.040	81.25
Kentucky	1924	78	7,266	8.1	63.2	67.8	7.8	8.4	.693	.646	43.78
	1926	86	9,904	9.0	69.7	74.2	7.8	8.3	.617	.579	42.98
Ohio	1924	55	6,832	7.7	59.1	64.3	7.7	8.4	.560	.791	50.87
	1926	45	6,747	9.2	71.6	77.8	7.8	8.4	.817	.752	58.48
Pennsylvania	1924	123	19,046	8.9	72.3	78.7	8.1	8.9	.743	.682	53.68
	1926	130	19,065	9.7	78.7	85.9	8.1	8.8	.711	.651	55.94
Tennessee	1924	17	860	7.5	56.5	60.1	7.6	8.1	.508	.478	28.73
	1926	10	625	8.3	63.5	68.2	7.7	8.3	.436	.406	27.68
Virginia	1924	12	1,006	8.2	61.6	65.4	7.5	8.0	.604	.569	37.24
	1926	21	1,894	9.0	70.9	76.1	7.8	8.4	.507	.556	42.33
West Virginia	1924	127	10,139	8.2	56.4	61.4	6.8	7.4	.831	.764	46.91
	1926	110	10,897	9.4	67.1	73.3	7.1	7.8	.776	.710	52.05
Total	1924	514	61,986	8.1	63.3	68.6	7.8	8.5	.811	.748	51.29
	1926	488	66,414	9.4	73.7	80.3	7.8	8.6	.779	.715	57.48
<i>Loaders, machine</i>											
Alabama	1924	1	17	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	3	34	9.9	84.9	92.6	8.6	9.4	1.043	.957	88.57
Illinois	1926	1	27	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Indiana	1926	4	23	8.8	88.6	93.9	10.1	10.7	.686	.647	60.81
Kentucky	1926	2	15	11.6	98.1	102.4	8.5	8.8	1.170	1.130	115.75
Ohio	1926	1	17	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania	1926	6	39	10.5	88.5	97.7	8.5	9.3	.704	.638	62.32
Tennessee	1924	1	19	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	1	18	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia	1924	1	5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	2	36	8.2	82.9	87.9	10.1	10.7	.551	.519	45.68
West Virginia	1924	5	46	10.8	99.1	106.7	9.2	9.9	.681	.633	67.48
	1926	5	112	10.2	89.8	95.8	8.7	9.3	.717	.671	64.32
Total	1924	10	102	9.4	84.3	90.4	9.0	9.6	.690	.644	58.20
	1926	23	306	9.9	87.3	93.7	8.8	9.5	.783	.735	68.80
<i>Miners, gang</i>											
Alabama	1926	1	13	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Colorado	1924	1	5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	18	573	7.7	63.4	68.8	8.3	9.0	1.361	1.254	86.23
Illinois	1924	21	919	9.6	79.6	87.1	8.3	9.1	1.411	1.289	112.28
Indiana	1924	6	98	7.0	53.7	55.8	7.7	8.0	1.318	1.269	70.82
	1926	5	71	9.4	71.2	75.8	7.6	8.1	1.335	1.254	95.11
Kentucky	1926	2	15	9.1	75.0	82.9	8.3	9.1	.685	.619	51.34
Ohio	1924	1	35	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1926	3	47	11.2	88.8	97.9	7.9	8.8	1.084	.982	96.22
Pennsylvania	1924	8	282	9.2	76.2	83.5	8.3	9.1	.865	.789	65.90
West Virginia	1924	6	43	10.1	70.9	76.6	7.0	7.6	1.031	1.000	79.00
Total	1924	40	1,086	8.1	66.6	71.1	8.1	8.8	1.187	1.094	77.79
	1926	32	1,065	9.5	78.7	86.0	8.2	9.0	1.377	1.260	108.33

¹ Data included in total.

TABLE 1.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS OF LOADERS AND MINERS, 1924 AND 1926, BY STATE—Con.

Occupation and State	Year	Number of mines	Number of employees	Average number of starts (days) in half-month pay period	Average hours—				Average earnings—				
					In half month, based on—		Per start, based on—		Per hour, based on—		In half-month pay period		
					Time at face, including lunch	Time in mine	Time at face, including lunch	Time in mine	Time at face, including lunch	Time in mine	Per start	Per hour	
Miners, hand or pick													
Alabama	1924	18	1,477	8.3	60.5	75.7	8.4	9.2	\$0.577	\$0.529	\$40.07	\$4.84	
	1926	17	1,537	9.7	81.8	90.8	8.4	9.3	.540	.486	44.12	4.53	
Colorado	1924	11	1,146	7.9	57.4	62.9	7.3	8.0	.929	.847	53.31	6.76	
	1926	13	1,103	10.2	77.4	86.4	7.6	8.4	.787	.705	60.95	5.95	
Illinois	1924	28	3,921	8.1	62.9	67.6	7.8	8.4	.912	.849	57.38	7.12	
	1926	13	3,155	9.8	77.4	84.1	7.9	8.6	.923	.850	71.47	7.32	
Indiana	1924	12	799	7.1	49.9	53.5	7.0	7.5	1.087	1.014	54.28	7.60	
	1926	8	1,146	8.9	65.4	70.7	7.3	7.9	1.047	.969	68.50	7.68	
Kansas	1924	9	1,474	9.8	64.0	69.6	6.5	7.1	.901	.829	57.70	5.90	
	1926	11	1,749	9.4	67.4	71.7	7.2	7.7	.809	.761	54.53	5.83	
Kentucky	1924	14	654	8.5	70.9	77.8	8.3	9.1	.776	.707	55.00	6.45	
	1926	10	418	10.2	85.0	91.5	8.5	9.1	.647	.601	54.99	5.47	
Ohio	1924	2	15	5.5	38.9	44.6	7.1	8.2	1.041	.910	40.54	7.42	
	1926	5	89	9.9	73.5	79.6	7.4	8.0	.879	.813	64.67	6.54	
Pennsylvania	1924	105	8,010	8.7	70.7	76.9	8.1	8.8	.777	.714	54.91	6.31	
	1926	110	8,766	9.9	81.2	89.6	8.2	9.0	.768	.696	62.39	6.27	
Tennessee	1924	14	869	8.0	62.1	67.0	7.7	8.3	.541	.502	33.60	4.18	
	1926	7	544	8.7	69.6	75.6	8.0	8.7	.436	.402	30.37	3.49	
Virginia	1924	1	13	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
	1926	1	25	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
West Virginia	1924	77	3,046	8.5	61.6	67.4	7.2	7.9	.831	.760	51.18	5.99	
	1926	50	2,062	9.8	69.5	75.7	7.1	7.7	.794	.730	55.21	5.65	
Total	1924	291	21,424	8.5	65.6	71.2	7.7	8.4	.809	.745	53.06	6.27	
	1926	254	20,594	9.8	77.0	84.3	7.9	8.6	.783	.715	60.31	6.18	
Miners, machine cutters													
Alabama	1924	27	342	8.4	75.8	81.6	9.0	9.7	.836	.775	63.29	7.56	
	1926	28	149	10.2	91.8	100.5	9.0	9.8	.911	.832	83.61	8.17	
Colorado	1924	15	119	8.8	72.3	77.5	8.2	8.8	1.336	1.246	96.56	11.01	
	1926	13	109	10.5	88.8	95.4	8.4	9.1	1.071	.997	95.12	9.03	
Illinois	1924	35	1,196	7.8	60.0	65.5	7.7	8.4	1.500	1.376	90.10	11.57	
	1926	33	1,326	9.7	74.5	82.4	7.7	8.5	1.501	1.358	111.89	11.57	
Indiana	1924	15	260	6.5	49.4	51.7	7.7	8.0	1.684	1.609	83.15	12.88	
	1926	10	206	9.6	74.8	79.7	7.8	8.3	1.614	1.514	120.68	12.53	
Kentucky	1924	75	797	8.8	78.5	83.3	8.9	9.4	.927	.874	72.79	8.25	
	1926	86	805	9.7	84.6	89.3	8.7	9.2	.956	.905	80.83	8.34	
Ohio	1924	57	740	8.8	71.1	77.1	8.1	8.7	1.274	1.175	90.62	10.27	
	1926	44	700	10.5	83.6	90.7	7.9	8.6	1.202	1.108	100.49	9.55	
Pennsylvania	1924	126	1,852	9.7	81.4	88.3	8.4	9.1	1.142	1.053	92.95	9.61	
	1926	128	1,800	10.9	94.2	102.5	8.6	9.4	1.133	1.041	106.70	9.75	
Tennessee	1924	16	125	8.2	68.5	73.1	8.3	8.9	.549	.514	37.56	4.58	
	1926	10	38	9.8	85.3	91.8	8.7	9.3	.518	.482	44.20	4.49	
Virginia	1924	12	93	9.9	92.2	96.7	9.4	9.8	.657	.626	60.53	6.14	
	1926	20	97	10.9	99.4	105.3	9.1	9.7	.821	.775	81.60	7.49	
West Virginia	1924	107	975	9.0	73.3	78.7	8.1	8.7	1.134	1.055	83.09	9.20	
	1926	92	825	10.7	89.5	96.9	8.4	9.1	1.200	1.108	107.39	10.05	
Total	1924	485	6,499	8.8	72.9	78.6	8.3	8.9	1.163	1.079	84.79	9.65	
	1926	464	6,055	10.3	86.0	93.3	8.3	9.0	1.195	1.101	102.68	9.93	
Miners, machine cutters, helpers													
Alabama	1926	24	170	8.1	72.0	79.4	8.8	9.7	.597	.541	42.96	5.28	
Colorado	1926	3	6	10.7	89.2	99.3	8.4	9.3	.939	.843	83.70	7.85	
Kentucky	1926	53	353	8.4	74.7	79.0	8.9	9.4	.718	.679	53.64	6.41	
Pennsylvania	1926	22	151	10.6	94.8	102.2	8.9	9.6	.839	.778	79.54	7.47	
Tennessee	1926	9	39	6.4	60.8	64.2	9.4	10.0	.371	.351	22.55	3.50	
Virginia	1926	16	72	8.6	83.6	87.8	9.8	10.2	.489	.465	40.87	4.77	
West Virginia	1926	24	91	9.3	86.0	90.9	9.3	9.8	.620	.586	53.30	5.73	
Total	1926	151	882	8.8	79.0	84.5	9.0	9.6	.681	.637	53.77	6.14	

¹ Data included in total.

Changes in Wage Rates Since October 15, 1926

AS a result of the coal strike in England in 1926 there was an unusual demand for coal from bituminous-coal mining companies in the United States. This demand resulted in temporary increases in wage rates at 289 of the 556 mines covered in 1926. The increases were made in November or December, but in nearly all cases continued in effect for only a short time, after which the rates were reduced to those in effect prior to the increase. In Kentucky 58 of the 86 mines covered made increases ranging from 5 per cent to 40 per cent. In Ohio 3 of the 45 mines made increases ranging from 15 to 25 per cent. In Pennsylvania 86 of the 151 mines made increases ranging from 20 to 50 per cent. In Tennessee 12 of the 14 mines made increases of 20 and 25 per cent. In Virginia 21 of the 22 mines made increases of 10, 20, 25, or 30 per cent. In West Virginia 109 of the 118 mines made increases ranging from 10 to 50 per cent. In Colorado one mine made a permanent increase in wage rates in December.

The figures used in this report are based on the rates which prevailed on October 15, before the temporary increases were made, and are therefore representative of conditions in the industry during the greater part of the year 1926.

Data were obtained from some mines for a period later than October 15, but the earnings of record were adjusted so as to show equivalent earnings as of the October 15 rates. This action was taken so as to put all mines on a comparable base, and show the rates that governed the greater part of 1926.

Table 2 presents for 1924 and 1926 the average number of starts (days) and average hours and earnings for inside and outside occupations in which the employees are usually time workers—that is, paid at rates per hour, day, or week. The averages are based on hours actually worked.

The table shows that engineers and pumpmen worked more starts (days) and hours in the half month than did the employees in any of the other occupations. A large percentage of the employees in these occupations work overtime and on Sundays and holidays. The average earnings per hour in 1926 for inside occupations, exclusive of trappers (boys), range from 62 cents for laborers to 81.1 cents for cagers, and for outside occupations range from 54.6 cents for laborers to 76.2 cents for engineers.

TABLE 2.—AVERAGE NUMBER OF STARTS (DAYS OR PARTS OF DAYS) AND AVERAGE HOURS AND EARNINGS, 1924 AND 1926, BY OCCUPATION

[The data in this table are for employees of all inside and outside occupations, except loaders and miners]

Occupation	Year	Number of mines	Number of employees	Average number of starts (days) made in half-month pay period	Average hours worked—		Average earnings—		
					In half-month pay period	Per start (day)	In half-month pay period	Per start (day)	Per hour
<i>Inside work</i>									
Brakemen	1924	547	4,259	8.9	75.0	8.4	\$53.25	\$5.96	\$0.710
	1926	518	4,368	9.9	83.8	8.5	57.61	5.82	.687
Bratticemen and timbermen	1924	484	2,521	9.8	81.1	8.3	63.04	6.44	.778
	1926	484	2,800	10.8	89.2	8.3	66.20	6.16	.742
Cagers	1924	198	410	9.6	83.2	8.7	71.53	7.46	.860
	1926	188	414	11.1	99.5	9.0	80.73	7.29	.811
Drivers	1924	377	4,603	8.8	72.3	8.2	54.08	6.12	.748
	1926	320	4,530	10.2	84.4	8.3	59.80	5.88	.708
Laborers	1924	502	7,228	8.9	74.2	8.3	48.74	5.47	.657
	1926	500	8,823	9.4	78.7	8.4	48.82	5.18	.620
Motormen	1924	548	3,751	9.7	83.6	8.6	62.89	6.46	.752
	1926	520	4,239	10.8	94.7	8.7	67.97	6.27	.718
Pumpmen	1924	402	1,015	11.7	106.4	8.8	70.38	6.02	.681
	1926	402	1,081	12.7	118.8	9.3	74.04	5.84	.626
Trackmen	1924	687	4,028	9.7	81.2	8.3	59.83	6.14	.737
	1926	554	4,246	10.8	91.0	8.4	64.15	5.92	.705
Trappers (boys)	1924	273	925	8.3	66.7	8.0	27.24	3.27	.408
	1926	207	603	9.9	79.7	8.0	30.17	3.04	.379
Other employees	1924	538	4,786	10.5	89.7	8.5	73.32	6.97	.817
	1926	522	5,745	11.3	98.0	8.7	75.96	6.71	.775
<i>Outside work</i>									
Blacksmiths	1924	581	969	10.7	92.0	8.6	71.75	6.72	.780
	1926	540	909	11.9	104.8	8.8	77.94	6.56	.743
Carpenters and car-repair men	1924	474	1,354	10.4	89.6	8.6	61.96	5.93	.691
	1926	484	1,545	11.4	98.3	8.6	62.28	5.64	.654
Engineers	1924	333	732	12.9	114.4	8.9	91.56	7.00	.801
	1926	320	674	13.3	119.6	9.0	91.17	6.83	.762
Laborers	1924	591	7,514	9.5	81.2	8.6	46.73	4.93	.575
	1926	550	7,877	10.7	92.6	8.7	50.58	4.74	.546
Other employees	1924	578	4,823	11.1	99.1	8.9	62.73	5.64	.633
	1926	540	4,201	12.1	108.1	8.9	65.31	5.41	.604

¹ Not including 1 female weigher who worked 5 starts, 36 hours, at a rate of \$2.72 per day of 8 hours, and earned \$12.24.

Table 3 shows for 1926 the number and the per cent of the 66,414 hand loaders, 20,594 hand or pick miners, and 6,055 machine miners in each classified earnings group based on (1) the actual hours at the face or seam of coal, including time for lunch, and (2) the actual hours in the mine, including time of travel from the opening of the mine to the face and return, the working hours, and the time for lunch. It will be seen that the difference per day between hours at the face (7.8) and the hours in the mine (8.6), as shown in Table 1 for loaders, is eight-tenths of an hour or 48 minutes, representing the average time of travel inside the mine from the entrance to the place of work and return.

Average earnings per hour computed on the basis of hours at the face (including time for lunch) are greater than when computed on the basis of hours in the mine (including time of travel and time for lunch) because the latter includes 48 minutes per day of nonproductive time spent in travel.

Of the 66,414 hand loaders classified in Table 3, it is seen that, on the basis of hours at the face including time for lunch, 7,088, or 11 per cent, earned 40 and under 50 cents per hour, but on the basis of total hours in the mine (including travel time, working time, and

lunch time) 8,345 of them, or 12 per cent, were in this earnings group; that on the basis of hours at the face, 12,813, or 19 per cent, earned less than 50 cents per hour, while on the basis of total hours in the mine, 16,332, or 25 per cent, earned less than that amount per hour. On the basis of hours at the face, 58 per cent earned less than 80 cents per hour, while on the basis of total hours in the mine, 66 per cent earned less than 80 cents per hour. On the basis of hours at the face, 99 per cent earned less than \$1.50 per hour.

TABLE 3.—NUMBER AND PER CENT OF LOADERS, HAND OR PICK MINERS, AND MACHINE MINERS (CUTTERS), WHOSE HOURLY EARNINGS WERE WITHIN EACH CLASSIFIED AMOUNT, 1926

Occupation and classified earnings per hour	Number		Per cent			
	Based on time at face, including lunch time	Based on time in mine, including lunch and travel time	Actual		Cumulative	
			Based on time at face, including lunch time	Based on time in mine, including lunch and travel time	Based on time at face, including lunch time	Based on time in mine, including lunch and travel time
<i>Loaders, hand</i>						
Under 30 cents	1,704	2,452	3	4	3	4
30 and under 40 cents	4,021	5,535	6	8	9	12
40 and under 50 cents	7,088	8,345	11	12	19	25
50 and under 60 cents	8,461	9,678	13	15	32	39
60 and under 70 cents	8,807	9,530	13	14	45	54
70 and under 80 cents	8,146	8,343	12	13	58	66
80 and under 90 cents	7,302	6,252	11	10	69	77
90 cents and under \$1	6,103	5,361	9	8	78	85
\$1 and under \$1.10	5,006	4,177	8	6	85	91
\$1.10 and under \$1.20	3,801	2,726	6	4	91	95
\$1.20 and under \$1.30	2,555	1,642	4	2	95	97
\$1.30 and under \$1.40	1,548	864	2	1	97	99
\$1.40 and under \$1.50	856	420	1	1	99	99
\$1.50 and under \$1.60	438	159	1	(1)	99	100
\$1.60 and under \$1.70	224	83	(1)	(1)	100	100
\$1.70 and under \$1.80	107	50	(1)	(1)	100	100
\$1.80 and under \$1.90	61	27	(1)	(1)	100	100
\$1.90 and under \$2	43	18	(1)	(1)	100	100
\$2 and under \$2.50	63	37	(1)	(1)	100	100
\$2.50 and under \$3	15	6	(1)	(1)	100	100
\$3 and over	5	(1)	(1)	(1)	100	100
Total	66,414	66,414	100	100	100	100
<i>Miners, hand or pick</i>						
Under 30 cents	432	676	2	3	2	3
30 and under 40 cents	939	1,317	5	6	7	10
40 and under 50 cents	1,858	2,463	9	12	16	22
50 and under 60 cents	2,552	3,100	12	15	28	37
60 and under 70 cents	2,965	3,069	14	15	43	52
70 and under 80 cents	2,790	2,960	14	14	56	66
80 and under 90 cents	2,595	2,428	13	12	69	73
90 cents and under \$1	2,129	1,695	10	8	79	86
\$1 and under \$1.10	1,477	1,151	7	6	86	92
\$1.10 and under \$1.20	1,094	742	5	4	91	95
\$1.20 and under \$1.30	688	457	3	2	95	97
\$1.30 and under \$1.40	477	227	2	1	97	99
\$1.40 and under \$1.50	261	144	1	1	98	99
\$1.50 and under \$1.60	150	65	1	(1)	99	100
\$1.60 and under \$1.70	86	44	(1)	(1)	99	100
\$1.70 and under \$1.80	46	13	(1)	(1)	100	100
\$1.80 and under \$1.90	28	6	(1)	(1)	100	100
\$1.90 and under \$2	16	4	(1)	(1)	100	100
\$2 and under \$2.50	19	12	(1)	(1)	100	100
\$2.50 and under \$3	4	1	(1)	(1)	100	100
Total	20,594	20,594	100	100	100	100

¹ Less than 1 per cent.

² The actual percentage is between 99.5 and 100.

TABLE 3.—NUMBER AND PER CENT OF LOADERS, HAND OR PICK MINERS, AND MACHINE MINERS (CUTTERS) WHOSE HOURLY EARNINGS WERE WITHIN EACH CLASSIFIED AMOUNT, 1926—Continued.

Occupation and classified earnings per hour	Number		Per cent			
	Based on time at face, including lunch time	Based on time in mine, including lunch and travel time	Actual		Cumulative	
			Based on time at face, including lunch time	Based on time in mine, including lunch and travel time	Based on time at face, including lunch time	Based on time in mine, including lunch and travel time
Miners, machine (cutters)						
Under 30 cents	5	8	(1)	(1)	(1)	(1)
30 and under 40 cents	31	43	1	1	1	1
40 and under 50 cents	78	160	1	3	2	3
50 and under 60 cents	309	366	5	6	7	10
60 and under 70 cents	308	430	5	7	12	17
70 and under 80 cents	435	454	7	7	19	24
80 and under 90 cents	471	528	8	9	27	33
90 cents and under \$1	485	656	8	11	35	44
\$1 and under \$1.10	565	557	9	9	44	53
\$1.10 and under \$1.20	587	652	10	11	54	64
\$1.20 and under \$1.30	574	469	9	8	64	71
\$1.30 and under \$1.40	423	384	7	6	71	78
\$1.40 and under \$1.50	351	318	6	5	76	83
\$1.50 and under \$1.60	307	277	5	5	81	88
\$1.60 and under \$1.70	285	215	5	4	86	91
\$1.70 and under \$1.80	197	161	3	3	89	94
\$1.80 and under \$1.90	164	129	3	2	92	96
\$1.90 and under \$2	138	96	2	2	94	97
\$2 and under \$2.50	297	128	5	2	99	100
\$2.50 and under \$3	33	18	1	(1)	100	100
\$3 and over	12	6	(1)	(1)	100	100
Total	6,055	6,055	100	100		

¹ Less than 1 per cent.

² The actual percentage is between 99.5 and 100.

Table 4 shows the average number of starts (days on which employees worked) and the per cent of employees in each occupation who worked each specified number of days during the pay period covered by the study.

Practically every mine reported some employees as having worked less than the number of days the mine was in operation in the half month for which data were reported because of sickness or other disability, voluntary absence, or whose term of service was less than the full pay period. In a considerable number of the occupations employees, especially engineers and pumpmen, worked on Sundays, and are shown as having worked on more than 11, 12, 13, or 14 days, the number of days (exclusive of Sundays and holidays) in the half month for which data were taken. In such cases employees worked on Sundays and holidays and week days.

Owing to the fact that few companies regularly kept a record of the hours of tonnage workers, it was not possible to obtain data from all companies for an identical half month. It should, therefore, be borne in mind in studying the figures that the week days in the different half months taken were 11, 12, 13, or 14.

TABLE 4.—PER CENT OF EMPLOYEES MAKING EACH SPECIFIED NUMBER OF STARTS (DAYS) IN HALF-MONTH, 1926, BY OCCUPATION

Occupation	Number of mines	Number of employees	Average number of starts (days)	Per cent of employees whose starts (days on which they worked) in the half month were—															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>Inside work</i>																			
Brakemen.....	518	4,368	9.9	3	2	2	3	3	4	4	6	8	10	13	18	20	3	1	(1)
Bratticemen and timbermen.....	484	2,800	10.8	2	1	2	2	2	2	4	4	6	9	11	17	27	7	4	(1)
Cagers.....	188	414	11.1	(1)	1	2	2	(1)	2	2	6	7	9	11	18	25	8	4	1
Drivers.....	320	4,530	10.2	3	2	2	2	2	2	5	5	7	10	14	18	22	3	2	(1)
Laborers.....	500	8,823	9.4	6	4	3	3	3	4	4	6	7	8	11	15	19	4	2	(1)
Loaders, contract.....	61	694	10.1	1	1	1	2	3	4	4	6	11	13	18	15	21	(1)	---	
Loaders, hand.....	488	66,414	9.4	2	2	2	3	4	4	6	8	10	13	15	18	12	(1)	(1)	---
Loaders, machine.....	23	306	9.9	1	1	3	2	4	3	6	11	7	14	14	16	14	5	1	---
Miners, gang.....	32	1,065	9.5	1	2	2	2	3	6	13	10	18	12	17	11	---			
Miners, hand or pick.....	254	20,594	9.8	1	2	2	2	2	4	5	7	12	15	17	18	13	1	(1)	---
Miners, machine (cutters).....	464	6,055	10.3	2	2	2	1	3	2	4	6	7	10	14	22	24	1	(1)	---
Miners, machine (cutters), helpers.....	151	882	8.8	9	4	3	3	4	2	5	8	6	11	12	16	16	(1)	(1)	---
Motormen.....	520	4,239	10.8	2	2	1	1	2	2	2	4	6	9	13	19	28	5	3	(1)
Pump men.....	402	1,081	12.7	2	1	2	1	1	1	2	1	2	4	5	9	19	10	31	10
Trackmen.....	554	4,246	10.8	2	2	2	2	2	3	5	6	7	13	18	26	7	5	(1)	---
Trappers (boys).....	207	693	9.9	2	2	2	2	3	4	6	6	7	9	13	21	20	1	1	(1)
Other employees.....	522	5,745	11.3	2	1	1	1	2	2	3	4	4	7	10	14	32	8	8	1
Total.....	556	132,949	9.8	2	2	2	2	3	4	5	7	9	12	14	18	16	2	1	(1)
<i>Outside work</i>																			
Blacksmiths.....	540	909	11.9	1	1	1	1	1	1	2	3	3	5	9	16	37	13	6	1
Carpenters and car-repair men.....	484	1,545	11.4	1	1	1	2	1	2	2	4	5	6	11	17	33	8	5	1
Engineers.....	320	674	13.3	1	(1)	(1)	(1)	1	1	2	1	3	6	8	24	9	35	9	9
Laborers.....	550	7,877	10.7	2	2	2	2	3	3	3	5	6	8	12	19	27	6	3	1
Other employees.....	540	4,201	12.1	1	1	1	1	1	1	2	3	3	5	7	12	33	9	15	4
Total.....	556	15,206	11.3	2	1	1	1	2	2	2	4	4	6	10	16	30	7	8	2
Grand total	556	148,155	9.9	2	2	2	2	3	4	5	7	8	11	14	18	18	2	2	(1)

¹ Less than 1 per cent.

Wage Rates and Hours Established by Recent Agreements or by Arbitration

Blacksmiths—American Railway Express Co.

AN INCREASE of 2½ cents per hour was given the members of the Brotherhood of Blacksmiths, Drop Forgers and Helpers in the employ of the American Railway Express Co., effective January 1, 1927, by an arbitration board consisting of Marcus M. Marks, Frank Tully, and E. E. Bush.

Hotel and Restaurant Employees—Vallejo, Calif.

THE 1927 agreement between Culinary Workers' Local Union No. 560 and the restaurant and café proprietors of Vallejo, Calif., provides for 8 hours' work in 12, six days a week, and the following scale, including board:

Restaurants, cafés, and cafeterias

Chef or head cook	per day	\$7.00
Chef pastry cook	per day	\$8.00
Doughnut and assistant pastry cooks	per day	7.00
All other cooks	per day	6.00
Waiters, yardmen, dishwashers, and all miscellaneous help	per day	4.00
Waiters—short shift (6 hours), 6 days	per week	20.00
Waitresses	per day	3.35
Waitresses	per week	20.00
Waitresses—short shift (6 hours), 6 days	per week	18.00
Cafeteria girls, buss girls, and steam-table girls, same wages as waitresses.		

Overtime

Cooks	per hour	1.00
Waiters, waitresses, dishwashers, and miscellaneous help	per hour	.75

Banquets and parties

Cooks	per day	8.00
Cooks, overtime	per hour	1.50
Waiters, waitresses	per day	5.00
Waiters and waitresses (not less than 3 hours)	per hour	1.00

Banquets and parties out of town

Cooks	per day	10.00
Waiters, waitresses, and miscellaneous help	per day	6.00

Lunch and dinner

Waiters and waitresses (not less than two hours)	per hour	.75
--	----------	-----

Extras

Extra cooks, Sundays and holidays	per day	7.00
Extra waiters, waitresses, and miscellaneous help, Sundays	per day	4.00
Holidays	per day	5.00

Marine Cooks and Stewards' Association

THE 1927 scale of the Marine Cooks and Stewards' Association contains monthly rates as follows: Stewards, \$140; cooks, first, \$120; cooks, second, \$80; cooks, third, \$60; bakers, \$80; mess men, \$50; mess boys, \$42.50.

Marine Firemen, Oilers, and Water Tenders—Atlantic and Gulf

THE 1927 monthly wages of the Marine Firemen, Oilers and Water Tenders' Union of the Atlantic and Gulf are as follows: Oilers, three-watch system, \$72.50; firemen (oil), \$65; firemen (coal), \$75; coal passers, \$60; and wipers, \$57.50.

Plumbers and Steam Fitters—Lafayette, Ind.

PLUMBERS' Local Union No. 240, of Lafayette, made an agreement effective March 1, 1927, to April 1, 1929. The wage for a 44-hour week is \$1.17½ per hour to April 1, 1928, and \$1.25 thereafter.

Pressmen—Joliet, Ill.

A TWO-YEAR agreement between Web Pressmen's Local Union No. 111 and the Joliet Printing Co. became effective February 1, 1927. Four journeymen were given a scale of \$36 per week of 48 hours and an assistant \$25.72.

¹ And expenses.

Railroad Conductors and Trainmen—Louisville & Nashville Railroad

THE Louisville & Nashville Railroad Co. made agreements with the Brotherhood of Railroad Trainmen and the Order of Railway Conductors, effective February 1, 1927. The rates of pay mentioned in the agreements are per day, as follows: Passenger service—Conductors, \$7.20; baggagemen, \$5.22; baggagemen handling express, dynamo, or United States Mail, \$5.56; baggagemen handling express and dynamo, or express and United States Mail, or dynamo and United States Mail, \$5.90; baggagemen handling express, dynamo, and United States Mail, \$6.24; flagmen and brakemen, \$5.05. Freight service—through freight and mixed service, conductors, \$6.62; flagmen, brakemen, and baggagemen, \$5.20; local freight service, conductors, \$7.18; flagmen and brakemen, \$5.63. Work construction and wrecking service—conductors, \$7.18; flagmen and brakemen, \$5.63. Overtime, per hour—Through freight and mixed train service, conductors, \$1.24; flagmen, baggagemen, and brakemen, \$0.98; local freight, work construction and wrecking service, and mine switching run service, conductors, \$1.35; flagmen and brakemen, \$1.06.

Railroad Maintenance of Way Foremen—Buffalo, Rochester & Pittsburgh Railway

THE Maintenance of Way Foremen's Association made an agreement with the Buffalo, Rochester & Pittsburgh Railway Co., adjusting the rates of pay from May 1, 1927. The old and new monthly rates are as follows:

	Old	New
Carpenter and bridge foremen-----	\$145.00	\$152.00
	150.00	157.00
	155.00	162.00
Painter foremen-----	145.00	152.00
	150.00	157.00
Mason foremen-----	155.00	162.00
	159.00	166.00
Section foremen-----	120.00	137.00
	135.00	142.00
	140.00	147.00
	145.00	152.00
Extra gang foremen-----	150.00	157.00
Fence gang foremen-----	130.00	137.00
Ditcher gang foremen-----	122.00	129.00
	150.00	157.00
Assistant track foremen-----	112.00	119.00
Assistant foremen, creosoting plant-----	120.00	127.00
Assistant carpenter foremen-----	133.00	140.00
Foremen (hourly rated) ----- per hour	82	85½
Assistant foremen (hourly rated) ----- do	77	80½

Railroad Shopmen

*A*NN Arbor Railroad Co.—By agreement between System Federation No. 77 and the Ann Arbor Railroad Co., April 1, 1927, the rates of pay affecting machinists, boilermakers, blacksmiths, sheet-metal workers, welders, electricians, carmen, stationary engineers, and firemen in the motive and car departments were increased 2½ cents per hour.

NEW Orleans Great Northern Railroad Co.—The New Orleans Great Northern Railroad Co. made an agreement with its employees, members of the machinists', boilermakers', blacksmiths', carmen's, sheet-metal workers', and electrical workers' unions, effective March 1, 1927. Wages per hour are as follows: Machinists, boilermakers, blacksmiths, sheet-metal workers and electricians, 73 cents; electric-hoist operators, 49 cents; coach and engine carpenters, 70 cents; planing-mill men, 68 to 73 cents; air-brake men, 70 cents; passenger-car and locomotive painters, 70 cents; pattern makers, 73 cents; freight-car repairers and freight-car painters, 62 cents; car inspectors, 65 cents; apprentices' starting rate (metal crafts), 29 cents; apprentices' starting rate (car department), 28 cents; helpers (metal crafts), 49 cents; helpers (car department), 45 cents; helpers (train yard) (car inspectors), 46 cents. Apprentices were increased 2½ cents per hour at the expiration of each six months, up to and including the first three years, 5 cents per hour for the first six months of the fourth year, and 7½ cents per hour for the last six months of the fourth year. Helper apprentices receive the minimum helpers' rate for the first six months, with increase of 2 cents per hour for every six months thereafter until they have served three years.

NEW Orleans Public Belt Railroad.—Wages of the crafts on the New Orleans Public Belt Railroad were increased January 25, 1927, the hourly rates being as follows: Machinists (inspectors), 81 cents; machinists, 76 cents; boilermakers (inspectors), 81 cents; boilermakers, 76 cents; blacksmiths (heavy fire), 81 cents; blacksmiths, 76 cents; welders, 81 cents; pipe fitters, 76 cents; painters (locomotive), 74 cents; carpenters (locomotive), 74 cents; apprentices to machinists, boilermakers, blacksmiths, and pipe fitters, 31 cents; helpers (heavy fire blacksmith), 58 cents; helpers (boilermaker, blacksmith), 53 cents; sheet-metal workers' and machinists' helpers, 53 cents; carmen (interchange inspectors assigned to interchanges), 69 cents; carmen (regular assignment furnishing empties), 69 cents; lead carmen (central station), 79 cents; lead carmen (Pauline yard), 74 cents; lead carmen (cotton warehouse), 74 cents; millman, 74 cents; airman (test-rack operator), 74 cents; carmen, 66 cents; carmen apprentices, 28 cents; carmen helpers, 50 cents. All apprentices receive an increase of 2 cents per hour every six months.

TERMINAL Railroad Association of St. Louis.—The Terminal Railroad Association of St. Louis increased the rates of pay of shopmen 2 cents per hour from February 1, 1927. The new hourly rates are as follows: Machinists, 75 cents; machinists' helpers, 52 cents; boilermakers, 75 cents; boilermakers' helpers, 54 cents; blacksmiths, 75 cents; blacksmiths' helpers, 54 cents; sheet-metal workers, 75 cents; sheet-metal workers' helpers, 52 cents; electricians, first class, 75 cents; electricians, second class, 71 cents; electricians' helpers, 52 cents. Carmen: Passenger-car repairmen and inspectors, cabinet-makers, upholsterers, locomotive carpenters, planing-mill men, air-brake rack men, pattern makers, coach and locomotive painters (performing varnishing, surfacing, lettering, or decorating), 75 cents; carmen helpers, 52 cents. Locomotive tank truckmen, freight-car repairmen and inspectors, air-hose couple-up men, 68 cents. Starting rates for apprentices: All regular apprentices, 32

cents; helper apprentices (boiler maker and blacksmith), 54 cents; helper apprentices (machinist, sheet-metal worker, electrician, and carmen), 52 cents.

Railroad Signalmen

THE Brotherhood of Railroad Signalmen made agreements effective February 1, 1927, with the Los Angeles & Salt Lake Railroad Co. and the St. Joseph & Grand Island Railway Co., the hourly rates for both companies being the same, as follows: Leading signalmen—leading signal maintainers, 85 cents; relay repairmen, 85 cents; signal wiremen, 80 cents; signalmen, 77 cents; signal maintainers, 73 cents; assistant signalmen—assistant signal maintainers, 51 cents for first 145 days with 2 cents additional for each succeeding 145 days up to 65 cents; signalmen helpers, 47 cents for first 145 days, 48 cents for second 145 days, and 49 cents thereafter.

The New York, Chicago & St. Louis Railroad Co. made an agreement with its signal-department employees, effective May 1, 1927. The rates per hour are as follows: Signal maintainers and signalmen, 75 cents; leading signalmen and leading signal maintainers, 80 cents; assistant signal maintainers and assistant signalmen, first six months, 52 cents; second six months, 54 cents; third six months, 56 cents; fourth six months, 58 cents, fifth six months, 60 cents; sixth six months, 62 cents; seventh six months, 64 cents, and eighth six months, 66 cents; helpers, 50 cents.

A board of arbitrators, consisting of W. H. Kirkbride, Daniel W. Helt, and Paul A. Sinsheimer, rendered a decision March 4, 1927, awarding the railroad signalmen on the Southern Pacific Railway an increase in the wage rates that had been in effect since July 1, 1922. The old rates and those awarded by the board are here given in cents per hour.

	Old	New
Leading signalmen and leading signal maintainers-----	77	$81\frac{1}{2}$
Signalmen and signal maintainers-----	72	$76\frac{1}{2}$
Assistant signalmen and assistant signal maintainers:		
First year, first six months-----	49	52
First year, second six months-----	51	54
Second year, first six months-----	53	$56\frac{1}{2}$
Second year, second six months-----	55	$58\frac{1}{2}$
Third year, first six months-----	57	61
Third year, second six months-----	59	63
Fourth year, first six months-----	61	$65\frac{1}{2}$
Fourth year, second six months-----	63	$67\frac{1}{2}$
Signal helpers-----	47	50

Railroad Station Employees—Boston & Maine Railroad Co.

AN INCREASE in wages of two cents per hour was given by an arbitration board consisting of Victor S. Clark, P. J. Clair, and Benjamin Thomas, by award of April 25, 1927, to the Brotherhood of Railroad Station Employees on the Boston & Maine Railroad. Benjamin Thomas, representing the company, dissented.

Railroad Telegraphers

BUFFALO, Rochester & Pittsburgh Railway Co.—The Order of Railroad Telegraphers made an agreement with the Buffalo, Rochester & Pittsburgh Railway Co., effective as to rates of pay

on February 1, 1927, the rates varying in the different cities and towns. The rates are given in cents per hour, as follows: First trick operators, 59.50 to 72.50, overtime 89.25 to 108.75; second and third trick operators, 57.50 to 70.50, overtime 86.25 to 105.75; trick operators and levermen, 65.25, overtime 98; first trick copiers, 73, overtime 109.50; second and third trick copiers, 71, overtime 106.50; car distributers, 77.50, overtime 116.25; agent operators, 61.50 to 79.50, overtime 92.25 to 119.25; clerk operators, 60.50 to 65.50, overtime 90.75 to 98.25; relief agents, 77.50, overtime 116.25; agents, 63.50 to 74, overtime 95.25 to 111. The monthly rate for agents varies from \$177 to \$222.

NORTHERN Pacific Railway Co.—An award was made by arbitrators, Homer B. Dibell, E. E. Dildine, and B. C. Lewis, April 22, 1927, increasing the rate of the telegraphers on the Northern Pacific Railway by 3 cents per hour. E. E. Dildine, representing the company, dissented.

Railway Clerks

NEW York Central Railroad.—March 26, 1927, an arbitration board consisting of Victor S. Clark, Daniel W. Dinan, and William B. Wilson rendered a decision in a dispute between the New York Central Railroad and the Brotherhood of Railway and Steamship Clerks, adding to the rate of pay in effect March 15, 1927, an increase of 6 per cent of existing rates for certain classes of labor.

SOUTHERN Pacific Co. (Pacific Lines).—A board of arbitrators consisting of J. O. Davis, J. H. Sylvester, and W. B. Kirkland rendered an award in a dispute between the Southern Pacific Co. (Pacific lines) and the Brotherhood of Railway Clerks, effective January 1, 1927. The increases were as follows:

Storekeepers, assistant storekeepers, chief clerks, foremen, sub-foremen, and other office, station, and store supervisory forces, 3 cents per hour; employees devoting a majority of their time to clerical work or as machine operators, 5 cents per hour; clerical employees and machine operators being paid at a rate less than the full rate of the position to which assigned to be paid the full rate of such position and an increase of 5 cents per hour; train and engine crew callers, 2 cents per hour; assistant station masters, passenger directors, train announcers, gatemen, ticket collectors, station and assistant station baggagemen, and baggage-room employees (other than clerks), 5 cents per hour; baggage and mail handlers and parcel-room employees, 7 cents per hour; auto messengers, baggage and mail truck drivers, 5 cents per hour; operators of small electric baggage and mail tractors, 7 cents per hour; janitors, elevator operators, office, station, store, and warehouse watchmen and employees engaged in assorting waybills and tickets, operating appliances or machines for perforating, addressing envelopes, numbering claims and other papers, gathering and distributing mail, adjusting dictaphone cylinders, and other similar work, 2 cents per hour; station, platform, warehouse, transfer, dock, pier, storeroom, and team track freight handlers or truckers, store helpers, store truck drivers and chauffeurs,

and others similarly employed, 4 cents per hour; store deliverymen, gang leaders, and apron tenders, 3 cents per hour; telephone switchboard operators, 3 cents per hour. Sealers, scalers, and fruit and perishable inspectors to receive 2 cents per hour above the rates for truckers; stowers, stevedores, callers, pickers, loaders, locators, cooperers, and freight platform tractor operators to receive 5 cents per hour above the rates for truckers. Employees without previous clerical experience as a clerical worker, hereafter entering service in the general offices at San Francisco and filling positions of clerk or machine operator to be paid \$2.35 per day for the first three months, \$2.55 per day for the second three months, \$2.75 for the next six months, and thereafter the established full rate of pay for the position occupied.

The board recommended that 1 cent per hour of the increase be used to adjust inequalities. W. B. Kirkland, representing the company, did not concur in the award.

Railways, Electric—Trenton & Mercer County Traction Corp.

THE Trenton & Mercer County Traction Corporation made a three-year agreement with Division No. 540 of the Amalgamated Association of Street and Electric Railway Employees, of Trenton, N. J., April 1, 1927. The basic day's work is nine hours except for men in the power house employed on three-shift forces, whose working time is eight hours. Work on snow plows and sweepers, as well as overtime, is paid for at the rate of time and one quarter. The agreement also includes bus operators. The hourly rates are as follows:

To motormen and conductors, platform time, for the first three months, 52 cents; for the next nine months, 54 cents; and thereafter, 56 cents. Operators of one-man cars get 5 cents additional. Railroad flagmen, 41.7 cents; track greasers, 45.68 cents; and controller repairmen, 56 cents.

Power house: Watch engineers, 71.47 cents; oilers, 56 cents; first fireman, 65.52 cents; second fireman and coal passers, 58.08 cents; utility men, 71.47 cents; and repairmen, 56 cents.

Car shops: Blacksmiths, 59.57 cents; armature winders' helpers, 56 cents; carpenters, 59.57 cents; carpenters' helpers, 56 cents; painters, 59.57 cents; painters' helpers, 56 cents; electricians, 65.05 cents; electricians' helpers, 56 cents; pitmen, 58.38 cents; miscellaneous men, 41.7 to 56 cents.

April 1, 1928, the scale is to be increased 2 cents per hour and April 1, 1929, 2 cents more.

Retail Clerks—Belleville, Ill.

A TWO-YEAR agreement made March 15, 1927, between the Retail Clerks' Local Union No. 219 and the retail merchants of Belleville, Ill., calls for an 8½-hour day except on Saturday, when the hours are increased to 9 hours and 40 minutes for men and 8 hours and 40 minutes for women, to be worked between 8 a. m. and 5.30 p. m., 7 p. m. on Saturday. Clerks are to work until 8 p. m. the four evenings before Christmas eve and until 6 p. m. Saturdays during July and August. The overtime rate is time and a half.

The scale for male clerks is \$11 a week for the first six months, \$12 for the second 6 months, and \$14 thereafter. Women clerks receive \$1 less. Clerks in the employ of a firm for a year are given one week's vacation with pay between May 1 and October 1.

Sailors' Association, Eastern and Gulf

THE Eastern and Gulf Sailors' Association (Inc.), affiliated with the International Seamen's Union of America, has the following monthly scale of wages for 1927: Boatswains, \$75; carpenters, \$80; quartermasters, \$70; able seamen, \$62.50; ordinary seamen, \$47.50. Three-watch system, 8 hours per day.

Typographical Unions

BEARDSTOWN, Ill.—Local Union No. 356, of Jacksonville, Ill., made an agreement with the printing offices of Beardstown and of Jacksonville for the year 1927. The working week in newspaper offices is to be 48 hours, in job offices 44 hours. For overtime time and a half is paid. The wage scale is as follows: Newspapers—Day work, journeymen, \$41 per week; operator machinists, \$43; foremen, \$44; night work, \$3 additional. Job offices—Day work, journeymen, 86½ cents per hour; operator machinists, 90½ cents; foremen, 92½ cents; night work, 6 cents per hour additional. Apprentices receive 45 per cent of the journeymen's wage in the third year, 60 per cent in the fourth year, and 75 per cent in the fifth year.

JOPLIN, Mo.—Local Union No. 350 made an agreement with the newspapers of Joplin, Mo., effective for three years from April 1, 1927, with the following scale for a 48-hour week: Journeymen, \$40; machinist operators and foremen, \$43; night work, \$3 additional; \$1 additional after October 1, 1928. Apprentices receive 50 per cent of journeymen's wages the fifth half year, 55 per cent the sixth, 60 per cent the seventh, 70 per cent the eighth, 80 per cent the ninth, and 90 per cent the tenth half year.

PITTSBURG, Kans.—A two-year agreement, effective February 15, 1927, was made between Typographical Union No. 470 and employers in Pittsburg, Kans., containing the following weekly scale: Daily newspapers—Journeymen, \$37; operators, \$38; night work, \$3 more. Job offices and weekly newspapers—Journeymen, \$33.92; operators, \$34.83; night work, \$2.75 additional. Machinist-operators, \$2 extra. Foremen, \$3 over journeymen. For overtime time and a half is paid. The hours are 48 per week for daily newspapers and 44 for job offices and weekly newspapers.

WAshington, Pa.—Typographical Union No. 456 made an agreement for the year 1927 with the job printers of Washington, Pa., calling for a wage of 93 cents per hour and a 44-hour week; also a 3-year agreement with the newspapers calling for a 48-hour week at \$47 per week for day work, and \$50.50 for night work, foremen \$3 additional, with an increase of \$1 on January 1, 1928. Apprentices receive 50 per cent of the journeymen's scale the third year, 66½ per cent the fourth year, and 75 per cent the fifth year. Both sets of workers receive time and one-half for overtime work.

ZANESVILLE, Ohio.—Typographical Union No. 199 made a three-year agreement with the employing printers of Zanesville, Ohio, effective February 1, 1927. By its terms newspaper offices work 48 hours a week and book and job offices 44 hours. For day work on newspapers foremen receive \$47 a week and journeymen \$44; night workers receive \$3 additional. In book and job offices foremen receive \$43 and journeymen \$40; night workers \$3 more. All overtime is at time and a half. February 1, 1929, the scale for every one is to be increased by \$1.

Salaries Paid in Public Schools, 1926-27

THE National Education Association has recently published a report¹ giving detailed data as to the salaries paid to teachers, principals, and other employees of the public schools in cities of various sizes. Table 1 shows these data in summary form:

TABLE 1.—MEDIAN SALARIES PAID IN SCHOOLS OF CITIES OF EACH CLASSIFIED SIZE IN 1926-27

Occupation	Median salaries in cities having population of—				
	2,500 to 5,000 (557 cities)	5,000 to 10,000 (374 cities)	10,000 to 30,000 (298 cities)	30,000 to 100,000 (147 cities)	Over 100,000 (59 cities)
Elementary-school teachers.....	\$1,176	\$1,281	\$1,381	\$1,565	\$2,008
High-school teachers:					
Junior.....	1,346	1,440	1,575	1,804	2,213
Senior.....	1,550	1,671	1,806	2,060	2,580
Principals:					
Elementary schools.....	2,319	2,229	2,250	2,536	3,437
Junior high schools.....	1,779	2,068	2,609	3,229	3,946
Senior high schools.....	2,333	2,821	3,424	4,138	4,813
Other employees:					
School nurses.....	1,564	1,578	1,587	1,573	1,569
Clerks, principals' offices.....	804	891	942	983	1,501
Clerks, administrative offices.....	932	1,105	1,220	1,264	1,534
Janitors.....	1,202	1,228	1,309	1,452	1,300
Attendance officers.....	(*)	(*)	1,210	1,775	2,022

* Below \$600.

¹ National Education Association. Research Division. Research Bulletin, March, 1927: Salaries in city school systems, 1926-27. Washington, D. C., 1927.

Table 2 shows the same data by States, for teachers and principals:

TABLE 2.—MEDIAN SALARIES OF TEACHERS AND PRINCIPALS IN SCHOOLS OF CITIES OF CLASSIFIED SIZE, 1926-27

State	Cities of 2,500 to 5,000 population						Cities of 5,000 to 10,000 population					
	Elementary schools		Junior high schools		Senior high schools		Elementary schools		Junior high schools		Senior high schools	
	Teachers	Principals ¹	Teachers	Principals	Teachers	Principals	Teachers	Principals	Teachers	Principals	Teachers	Principals
Ala.	\$868		\$933		\$1,157		\$927				\$1,110	
Ariz.	1,477	\$2,025	1,400		1,774		1,440	\$1,700	\$1,725		1,853	\$3,500
Ark.	920		961		1,160		766	(2)	974		1,197	
Calif.	1,614	1,938	2,279		2,406	\$3,900	1,627	2,100	1,721		2,305	3,700
Colo.	1,226	1,544	1,377	\$2,250	1,621	2,700	1,399	1,767	1,494	\$2,250	1,744	3,200
Conn.	1,236	1,850	1,683		1,556		1,284	1,613	1,575	1,750	1,675	3,100
Del.	1,025				1,467							
Fla.							1,050		1,257		1,288	
Ga.	867		1,050		1,120		904	(2)			1,309	
Idaho	1,187		1,300		1,487		1,243	1,417	1,338		1,569	2,950
Ill.	1,138	1,383	1,467		1,646	2,700	1,073	1,369	1,350		1,567	2,950
Ind.	1,168	1,425	1,267		1,500	2,325	1,194	1,413	1,348	1,950	1,589	2,450
Iowa	1,107	1,243	1,178	1,400	1,452	2,175	1,140	1,325	1,344	1,850	1,509	2,425
Kans.	1,034	1,370	1,238	1,750	1,558	2,375	1,191	1,419	1,404	2,350	1,578	2,850
Ky.	881		857		1,278	1,875	965	1,367	1,000		1,383	2,650
La.	1,086				1,338		877	1,238			1,150	
Me.	853		975		1,392	2,750	999	(2)	1,133		1,381	
Md.	1,078				1,250	1,875	1,254				1,542	
Mass.	1,221	1,500	1,488		1,563	2,625	1,365	1,625	1,577	2,550	1,728	3,050
Mich.	1,311	1,475	1,639	1,850	1,620	2,633	1,342	1,583	1,544	2,150	1,783	2,850
Minn.	1,123	1,364	1,283	1,450	1,431	2,083	1,198	1,350	1,507	1,750	1,464	2,250
Miss.	952				1,178		990	1,200	966		1,210	2,225
Mo.	881	(2)	950		1,317	1,875	1,211	(2)	1,450		1,547	2,550
Mont.	1,000				1,750		1,390	1,700	1,530			
Neb.	1,191	1,380	1,250		1,500	2,350	1,234	1,333	1,389		1,623	2,875
Nev.	1,450		1,375		1,850							
N. H.	1,025	(2)	1,150		1,357	2,550	1,153				1,463	
N. J.	1,428	1,800	1,769		1,893	2,750	1,554	2,150	1,782		1,970	3,400
N. Mex.	1,319		1,263		1,573						1,620	2,850
N. Y.	1,542	1,800	1,711	2,350	1,839	3,533	1,656	1,900	1,700		1,904	3,050
N. C.	1,041	1,250			1,263	2,250	1,215		1,290		1,528	
N. Dak.	1,156		1,275	1,725	1,488	2,050	1,315	1,538	1,345	1,850	1,633	2,500
Ohio	1,178	1,450	1,377	1,850	1,615	2,550	1,111	1,370	1,269	1,900	1,571	2,500
Okla.	970	1,375	1,145		1,300	2,200	964	1,425	1,065		1,387	2,450
Oreg.	1,169	1,533	1,243	1,650	1,298	2,067	1,237	1,680	1,334		1,538	2,575
Pa.	1,155	1,600	1,450		1,613	2,300	1,425	1,625	1,514		1,702	2,750
R. I.	1,159	1,379			1,713		1,433	1,475			1,763	
S. C.	979				1,098		951	1,250			1,213	
S. Dak.	1,150	1,450	1,275		1,565	2,400	1,321	1,475	1,500		1,756	3,075
Tenn.	830	(2)	1,000		1,281	2,080	943		1,038		1,383	
Tex.	941	1,307	1,154		1,327	2,025	964	1,329	975		1,373	2,067
Utah.	944	1,463	1,275		1,550	2,450					1,710	3,050
Vt.	950				1,288		1,107	1,450	1,367		1,171	2,550
Va.	(2)		950		1,086		932	(2)	1,015			
Wash.	1,269	1,800	1,400		1,562	2,175	1,261	1,502	1,417		1,579	
W. Va.	996	1,325	1,286		1,650	2,550	1,057	1,830	1,300		1,589	
Wis.	1,179	1,367	1,344		1,591	2,125	1,264	1,438	1,500	2,175	1,655	2,950
Wyo.	1,526		1,467		1,800	2,650	1,439	1,833	1,575		1,840	3,300

¹ Teaching principals.

² Less than \$1,200.

³ Less than \$600.

SALARIES OF PUBLIC-SCHOOL TEACHERS

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TABLE 2.—MEDIAN SALARIES OF TEACHERS AND PRINCIPALS IN SCHOOLS OF CITIES OF CLASSIFIED SIZE, 1926-27—Continued

State	Cities of 10,000 to 30,000 population						Cities of 30,000 to 100,000 population					
	Elementary schools		Junior high schools		Senior high schools		Elementary schools		Junior high schools		Senior high schools	
	Teachers	Principals	Teachers	Principals	Teachers	Principals	Teachers	Principals	Teachers	Principals	Teachers	Principals
Ala.	\$893	-----	\$1,290	-----	\$1,295	-----	\$974	\$1,500	-----	-----	\$1,628	\$4,300
Ariz.	1,638	\$2,100	2,070	\$4,900	-----	-----	-----	-----	-----	-----	-----	-----
Ark.	981	1,350	1,100	-----	1,383	2,650	-----	-----	-----	-----	-----	-----
Calif.	1,824	2,361	1,978	\$3,150	2,455	4,250	1,951	2,550	\$2,406	\$3,800	2,513	4,550
Colo.	1,473	1,938	1,644	2,575	1,811	3,500	1,578	2,350	1,942	3,075	2,075	4,100
Conn.	1,537	1,836	1,795	-----	1,980	3,750	1,794	2,275	1,970	3,350	2,140	4,500
Fla.	-----	-----	-----	-----	-----	-----	1,103	1,450	1,322	3,000	1,429	3,600
Ga.	976	1,250	-----	-----	1,436	-----	1,170	2,225	1,170	3,190	1,713	3,300
Idaho	1,392	1,917	1,550	-----	1,925	3,300	-----	-----	-----	-----	-----	-----
Ill.	1,264	1,675	1,332	1,583	1,795	3,500	1,507	1,906	1,618	2,550	1,940	4,175
Ind.	1,371	1,871	1,604	2,775	1,841	3,375	1,605	2,113	1,817	3,350	2,050	4,100
Iowa	1,307	1,550	1,544	-----	1,626	3,700	1,479	1,856	1,687	2,867	1,871	4,040
Kans.	1,280	1,817	1,521	2,850	1,776	3,500	1,691	2,246	1,671	2,850	2,029	4,650
Ky.	918	1,367	1,113	1,850	1,292	2,850	1,318	1,650	1,340	2,200	1,744	3,750
La.	1,095	1,967	-----	-----	1,355	-----	-----	-----	-----	-----	-----	-----
Me.	1,129	(2)	1,350	-----	1,535	-----	1,500	-----	1,600	3,050	1,833	3,850
Md.	1,045	1,650	-----	-----	1,520	-----	-----	-----	-----	-----	-----	-----
Mass.	1,465	1,683	1,620	2,350	1,806	3,700	1,627	1,741	1,762	3,175	2,048	4,400
Mich.	1,344	1,732	1,706	3,150	1,804	3,400	1,613	2,046	1,813	3,367	2,073	4,400
Minn.	1,393	1,600	1,610	-----	1,771	2,850	1,754	1,967	1,959	3,850	2,283	4,100
Miss.	1,075	1,550	1,180	-----	1,404	-----	-----	-----	-----	-----	-----	-----
Mo.	1,032	1,338	1,202	1,875	1,443	2,950	1,350	1,644	1,275	2,575	1,843	3,633
Mont.	1,585	2,170	1,600	-----	1,924	3,300	-----	-----	-----	-----	-----	-----
Nebr.	1,289	1,675	1,640	-----	1,663	3,300	1,655	2,050	1,700	3,000	2,015	5,250
N. H.	1,171	1,450	1,400	-----	1,580	-----	1,540	2,050	-----	-----	2,057	4,100
N. J.	1,708	2,125	2,155	4,200	2,188	4,100	1,929	2,350	2,190	4,400	2,668	4,700
N. Y.	1,618	1,927	1,789	3,600	1,901	3,600	1,710	2,921	1,900	3,275	2,082	4,450
N. C.	1,273	1,575	-----	-----	1,661	3,800	1,299	1,563	1,429	3,400	1,711	3,750
N. Dak.	1,384	1,567	1,438	2,550	1,711	3,300	-----	-----	-----	-----	-----	-----
Ohio	1,303	1,719	1,579	2,617	1,862	3,125	1,529	1,925	1,778	3,025	2,223	4,150
Okla.	1,066	1,533	1,238	2,400	1,599	3,150	1,589	1,675	1,679	3,450	2,038	4,300
Oreg.	1,167	1,550	1,200	2,000	1,375	2,500	-----	-----	-----	-----	-----	-----
Pa.	1,417	1,690	1,510	2,000	1,788	3,267	1,541	1,964	1,794	3,383	2,099	4,186
R. I.	1,492	2,000	-----	-----	1,794	3,300	1,528	1,691	1,653	3,200	1,858	4,050
S. C.	1,278	-----	-----	-----	1,513	-----	1,152	-----	-----	-----	1,488	3,300
S. Dak.	1,515	1,875	1,614	2,550	1,886	5,000	-----	-----	-----	-----	-----	-----
Tenn.	-----	-----	-----	-----	-----	-----	1,122	1,363	1,444	2,450	1,813	3,700
Tex.	1,015	1,500	1,214	-----	1,457	2,750	1,216	1,750	1,408	2,767	1,572	3,800
Utah	-----	-----	-----	-----	-----	-----	1,350	1,750	1,503	2,950	1,677	3,700
Vt.	1,185	-----	1,390	-----	1,613	3,400	-----	-----	-----	-----	-----	-----
Va.	1,086	-----	-----	-----	1,377	2,475	1,260	2,525	1,361	3,000	1,705	3,850
Wash.	1,467	2,038	1,608	-----	1,834	3,450	1,824	2,183	1,844	3,075	2,220	4,100
W. Va.	1,174	1,302	1,383	2,300	1,881	4,100	1,381	-----	1,572	3,050	1,980	3,700
Wis.	1,333	1,825	1,585	2,750	1,837	3,767	1,558	2,075	1,807	3,100	2,059	4,150
Wyo.	1,724	2,100	1,659	2,900	2,033	3,800	-----	-----	-----	-----	-----	-----

State

Cities of 100,000 population or over

Ala.	\$1,513	\$1,850	-----	-----	\$1,863	\$4,100
Calif.	2,065	2,942	\$2,529	\$4,266	2,396	4,556
Colo.	2,103	2,950	2,185	4,440	2,711	5,250
Conn.	1,814	2,444	2,008	3,400	2,263	4,500
Del.	1,800	-----	-----	-----	1,923	4,100
D. of C.	2,027	2,738	2,222	3,700	2,805	4,283
III.	2,353	-----	2,667	5,214	3,242	5,700

* Less than \$1,200.

TABLE 2.—MEDIAN SALARIES OF TEACHERS AND PRINCIPALS IN SCHOOLS OF CITIES OF CLASSIFIED SIZE, 1926-27—Continued

State	Cities of 100,000 population or over					
	Elementary schools		Junior high schools		Senior high schools	
	Teachers	Principals	Teachers	Principals	Teachers	Principals
Ind.	\$1,990	\$1,050			\$2,800	\$5,250
Iowa	1,824		\$2,040	\$3,300	2,345	3,900
Kans.	1,704	2,041	1,916	3,700	2,238	3,733
Ky.	1,383				1,973	3,800
La.	1,701	2,350			2,479	3,025
Md.	1,529		1,607	3,142	2,519	4,200
Mass.	1,780	1,922	2,023	3,800	2,490	5,100
Mich.	1,909	2,400	2,553	5,250	2,593	5,375
Minn.	1,753	2,000	1,968	3,357	2,295	4,375
Mo.	1,954	2,450	2,188	4,100	2,635	4,960
Nebr.	2,037				2,244	4,150
N. J.	2,009	2,250	2,394	4,450	3,161	7,000
N. Y.	2,578	2,975	3,217	4,400	3,201	6,318
Ohio	2,007	2,647	2,213	3,900	2,568	4,482
Oreg.	2,049	2,423			2,243	4,271
Pa.	1,780	2,480	2,352	5,000	3,161	5,500
R. I.	1,738	3,450			2,181	4,500
Tenn.	1,336	1,750	1,408	2,483	1,800	4,500
Tex.	1,550	1,800	1,579	3,250	1,871	3,800
Utah	1,657		1,773	3,425	1,942	4,000
Va.	1,406		1,663	3,667	2,000	4,100
Wash.	1,844	2,200			2,148	4,160
Wis.	2,401	2,850	2,200	4,100	2,600	5,000

Besides the above, the report gives for each occupation, the distribution by salary classes, lowest and highest salaries paid, and illustrates the information by charts of median salaries.

Adequacy of Incomes of Unskilled Laborers in Chicago

A COMPARISON of the earnings of 467 unskilled and semi-skilled laborers in Chicago earning from \$800 to \$2,400 in 1924, or an average of less than \$1,500, with the budget estimates established by the Chicago budget investigation in 1912 and revised from time to time down to 1925, shows that in approximately two-thirds of the families the earnings were insufficient to provide a standard of living equal to that provided in the budget, and that about three-fourths of the families studied had supplemental incomes, thus enabling them to approximate, if not reach or exceed, the budget standard. An analysis of the general living conditions of the whole group of wage earners and of the food consumed by a smaller number of families apparently shows that families living on a lower standard than that provided by the budget estimates "are living under conditions which fail utterly to provide a standard of living that will make possible a high standard of physical, mental, and moral health and efficiency for adults, the full physical and mental growth and development of children, and provision for their moral welfare."

These conclusions are set forth in a summary of an investigation made in Chicago in 1924-1926 by Dr. Leila Houghteling of the faculty of the graduate school of social service administration in cooperation with the local community research committee of the University of Chicago and the Chicago Council of Social Agencies,¹ for the purpose of ascertaining "facts in regard to the standard of living as found in the families of unskilled laborers in Chicago in order to judge whether the budget estimates for dependent families set too high a standard for families who were being supported by relief agencies."

Twelve firms cooperated in the investigation and furnished the names of 2,317 unskilled and semiskilled laborers employed in 1924, and later the earnings of those who furnished the schedules. This classification included "men definitely not of the skilled trades who were engaged in unskilled or semiskilled work earning approximately \$30 a week or less." This wage clause, however, was later modified to meet special conditions reported by the firms. For various reasons the information could not be obtained from many of the families, so that the data in this report are based upon a total of 467 schedules. The report covers facts regarding—

(1) The total income of families of unskilled laborers; how far this income is derived from the chief wage earner; to what extent it is supplemented from other sources; what those sources are; and whether, when all possible sources have been utilized, a "normal standard" of living is maintained; and (2) the relation of this standard to that set up by the Chicago budget in order to ascertain whether the Chicago budget is seeking to create for dependent families an unreasonably high standard of living.

Composition of Families and Households

THE 467 families studied included such as consisted of not less than three persons—father, mother, and one dependent child—where the man had been on the books of a firm for at least a year. Many of the families, however, included more than three persons; 97 families, or 20.8 per cent (the largest group), contained five persons; and 46.1 per cent contain more than five persons. Children in school but contributing in a small way to the family fund were included as dependents. Twenty-four per cent, or 112 families, contained two dependent children, while 59 per cent had three or more. This latter fact is regarded as significant in relation to the adequacy of the father's earnings and the family fund to meet the demands made upon them. Then, many families had other dependents—20 of the 37 families reporting these having also three or more dependent children.

Family Earnings

THE earnings of the men varied from \$800 to \$2,400 a year, about one-half (55.1 per cent) earning less than \$1,400, and about 95 per cent earning less than \$1,800. Four per cent earned less than \$1,000. A reason for this wide variation in earnings was the inexactness of the definition of the words "unskilled" and "semiskilled," some being included who might conceivably have been omitted altogether. Then, wages varied greatly in the firms cooperating; one had a bonus system which materially increased the earnings of

¹ The Social Service Review, Chicago, March, 1927, pp. 1-35: "The budget of the unskilled laborer," by Leila Houghteling.

the 20 men studied who were in its employ, and this served to bring up the average considerably. A point is made of the fact that the record of the earnings in this investigation was obtained from pay rolls and not from estimates made by the people interviewed as has been done in other investigations of this kind. A check-up indicated that in only 3.1 per cent of the cases were the estimated earnings the same as the pay-roll earnings, thus justifying the policy of going to the firms for the record of earnings of each worker scheduled. A tendency to underestimate earnings was found.

In nearly one-fourth of the families (108 or 23.1 per cent), the mothers were gainfully employed, about 50 per cent being in families where the chief wage earner was getting less than \$1,300 a year. Nearly 53 per cent had three or more dependent children. About 64 per cent of these working mothers contributed less than \$500 a year to the family budget, 41.9 per cent contributed less than \$300, and 22.8 per cent contributed less than \$100. Twenty-nine stated that they worked throughout the year. Some relief societies are endeavoring to keep mothers with young children out of industry. This necessarily increases the demands made upon the earnings of the husband, and consequently tends to make a wider difference in the family earnings and the standard budget upon which these same relief organizations base their assistance.

Children contributed quite materially to the family funds. In 33 families their earnings were under \$500, and in 72 families less than \$1,000. In all, 175 working children were found in 108 families, and only 7 of these were under 16 years of age. The supplemental income from other members of the family would appear to be a very important factor, since the report indicates that the father alone was employed in 57.2 per cent of the families, the father and mother in 19.7 per cent, the father and one or more of the children in 19.7 per cent, and both parents and one or more of the children in 3.4 per cent. Thus in 42.8 per cent of the families there were other wage earners than the father.

Income from boarders and roomers and other sources proved to be material factors in meeting the budget needs of many families. Thus in 267 families, or 57.5 per cent, the earnings were augmented by these other sources. Boarders and roomers paid less than \$300 a year in about half the families, while only 17 families received more than \$500 from this source.

In 265 families reporting sources of income, where the man was found to be the only wage earner, 112, or 42.3 per cent, depended entirely upon his earnings. This number, however, represents 24.1 per cent of the entire group of families studied, leaving approximately three-fourths of the families which had opportunity to supplement the father's earnings.

Bearing directly upon the point of the investigation, a table is given showing the number and per cent of families in which the earnings of the chief wage earner, as reported by employers, were above or below the standard budget to which reference has been made. This discloses the fact that in only 98 families (32.5 per cent) of the 302 included in this group (those buying homes were excluded since their expenditures are not entirely for current living expenses but are partly an investment representing the savings of the family) were the

earnings of the chief wage earner in excess of the standard budget, while in the remaining 204 families (67.5 per cent) the earnings fell below the budget standard. However, when all sources of income were considered, a far greater number were able to meet the requirements of the budget. Thus, in 186 families, or 55.4 per cent, the total family funds shows an excess over the budget. The report states at this point that—

In all this discussion there are several facts which stand out clearly and should be emphasized. The first is the fact that in more than two-thirds of the 337 families for whom these comparisons could be made, the wages of the chief wage earner are not sufficient to maintain a standard of living equal to that provided by the Chicago budget for dependent families, and in some of these cases the deficit existing between the earnings and the budget is very great, amounting to one-half the man's earnings. That is, in order to maintain a standard equal to the budget, he would have to increase his earnings by one-half. However, it is equally important to remember that when all sources of income are included, a far larger number are able to meet the requirements of the budget. But it is evident that even with all the sources of income included there are many families still unable to meet or approximate these requirements.

The various items in the family expenditures are taken up in detail to ascertain whether the families under consideration were spending more or less than the items in the budget estimates. The results of this inquiry were found to be rather unsatisfactory, but seemed to indicate generally a lower standard in accordance with the conclusions of the investigation as already noted.

Good Wages as a Factor in Industrial Prosperity

THE value of organization to industry was stressed by Hon. James J. Davis, Secretary of Labor, in an address before the Pittsburgh Chamber of Commerce, May 28, 1927. Formerly industrial combinations were feared, but a gradual change of attitude has taken place, so that to-day "we no longer ask how big is this organization but how useful is it. We know that the bigger the organization the harder it is to hide. Public opinion has become the real and sole regulator of our great industrial combinations. It asks of them only that they supply it at the lowest cost, with a liberal wage and generous treatment for their workers and a good profit to themselves."

The secretary urged that employers also combine for the purpose of admitting to their association only firms paying good wages and providing good working conditions.

The head of one of the nation's greatest industries is on record with the remark that you get nowhere in industry without contented workers—workers well paid, well housed, with no worries and no resentments in their minds. And let me cite right here one of the bitterest resentments a worker can feel.

Men are urged to speed up their production, thereby increasing their earnings, and then are told by the management that this larger pay is "out of line" with standard pay in the same trade. It is only a way of giving him no more money, while getting more work out of him. Keep your worker's production up, but pay him what he earns.

American industry to-day is permeated with a good will between worker and employer such as we have never known before. That good will we must strive to maintain if for no other reason than because it is good business. The nearly forty-two million workers we have are the largest buying element in the country. They constitute a great and important part of our home market. A great metro-

politan paper conceded the other day that the practical, hardheaded men at the head of business now understand that our present prosperity is due in large part to good wages well distributed among our best and biggest customer—the workers. We want that prosperity to continue unbroken and one way to maintain it is the payment of good wages.

Wages in France in October, 1926

THE following were the average hourly wages in different occupations in Paris and other cities in October, 1925, and October, 1926, according to the most recent annual wage study of the General Statistical Bureau of France:¹

TABLE 1.—AVERAGE HOURLY WAGES IN FRENCH CITIES, OCTOBER, 1925, AND OCTOBER, 1926, BY OCCUPATION

[Average exchange rate of franc=4.43 cents in October, 1925; 2.94 cents in October, 1926]

Paris and its environs

Occupation	Average hourly wages			Occupation	Average hourly wages		
	Octo- ber, 1925	October, 1926			Octo- ber, 1925	October, 1926	
Males	Francs	Francs	Cents	Males	Francs	Francs	Cents
Printers—compositors	4.55	6.00	17.6	Metal turners	4.00	4.95	14.6
Bookbinders	3.85	4.60	13.5	Quarry men	3.90	4.75	14.0
Tailors	4.50	5.75	16.9	Stone cutters	4.50	5.50	16.2
Wood turners	4.00	5.00	14.7	Masons	4.00	5.00	14.7
Cabinetmakers	4.00	5.50	16.2	Navvies	3.75	5.25	15.4
Pit sawyers	4.00	5.00	14.7	Tilers	4.00	4.50	13.2
Carpenters	4.00	5.00	14.7	House painters	4.15	4.75	14.0
Joiners	4.00	4.75	14.0	Ornamental carvers	5.00	5.50	16.2
Plumbers	4.00	4.50	13.2	Brick makers	4.00	5.00	14.7
Blacksmiths	4.70	6.00	17.6	Glaziers	4.30	5.25	15.4
Locksmiths	3.90	4.50	13.2				

Cities other than Paris

Males	Francs	Francs	Cents	Males	Francs	Francs	Cents
Brewers	2.47	2.80	8.2	Quarry men	2.72	3.22	9.5
Printers—compositors	2.98	3.50	10.3	Stone cutters	3.18	3.60	10.6
Bookbinders	2.84	3.45	10.1	Masons	2.98	3.48	10.2
Tanners	2.59	2.94	8.6	Navvies	2.47	2.89	8.5
Saddlers—harness makers	2.60	2.96	8.7	Tilers	3.05	3.46	10.2
Shoe makers	2.47	2.78	8.2	House painters	2.87	3.28	9.6
Tailors	2.78	3.15	9.3	Ornamental carvers	3.78	4.26	12.5
Dyers—scourers	2.57	2.92	8.6	Brick makers	2.56	3.03	8.9
Weavers	2.26	2.66	7.8	Potters	2.53	3.06	9.0
Rope makers	2.42	2.73	8.0	Glaziers	2.82	3.18	9.3
Wheelwrights	2.82	3.16	9.3	Laborers	2.08	2.42	7.1
Wood turners	2.89	3.33	9.8	Average, all male employees	2.79	3.22	9.5
Coopers	2.77	3.23	9.5	Females			
Cabinetmakers	3.05	3.46	10.2	Ironers	1.51	1.87	5.5
Upholsterers	2.98	3.45	10.1	Dress makers	1.50	1.84	5.4
Pit sawyers	2.62	3.15	9.3	Seamstresses	1.41	1.74	5.1
Carpenters	3.03	3.46	10.2	Waistcoat makers	1.52	1.83	5.4
Joiners	2.90	3.33	9.8	Lace makers	1.52	1.99	5.9
Coppersmiths	3.03	3.48	10.2	Embroiderers	1.56	1.94	5.7
Tinsmiths	2.83	3.27	9.6	Milliners	1.52	1.81	5.3
Plumbers	2.90	3.29	9.7	Average, female employees	1.51	1.86	5.5
Blacksmiths	2.92	3.33	9.8				
Farriers	2.78	3.24	9.5				
Stove makers	2.79	3.20	9.4				
Locksmiths	2.81	3.28	9.6				
Metal turners	2.93	3.39	10.0				
Watchmakers	3.08	3.64	10.7				

¹ Bulletin de la Statistique Générale de la France, January–March, 1927, pp. 167, 168.

Real Wages

IN TABLE 2, also taken from the above-mentioned publication, a comparison is made of the cost of board and lodging in October, 1925, and October, 1926, for an unmarried worker in the same localities in France for which wage data were secured:

TABLE 2.—AVERAGE DAILY WAGES, COST OF BOARD AND LODGING IN FRANCE, OCTOBER, 1925 AND 1926, AND INDEX NUMBERS THEREOF AND OF RETAIL PRICES IN NOVEMBER, 1925 AND 1926

[Average exchange rate of franc=4.43 cents in October, 1925; 2.94 cents in October, 1926]

Item	October, 1925	October, 1926	Index numbers [1911=100]	
			October, 1925	October, 1926
Daily wages:				
Men.....	France	France		
Men.....	23.25	26.93	504	584
Women.....	12.25	15.29	535	668
Cost of board and lodging per month.....	360.00	422.00	514	603
Retail prices of 13 articles ¹			465	638

¹ For November, 1925, and November, 1926, respectively.

It will be noted that the index numbers of men's and women's wages were, respectively, 16 and 25 per cent higher in October, 1926, than in October, 1925, while the index number of the cost of board and lodging for an unmarried worker was 17 per cent higher in October, 1926, than in the same month of the preceding year. The retail price index (based on 13 articles), however, showed an increase of 37 per cent in November, 1926, as compared with November, 1925. This index, relating as it does to articles of prime necessity alone, represents the influence of price changes upon the cost of a fixed standard of living, while the cost of board and lodging of single workers may represent changes in the standard of living.

Wages and Conditions in the German Textile Industry, First Quarter of 1927¹

RUMORS of general increases in rents effective from April 1, 1927, caused a general agitation on the part of union workers for higher wages during the first two months of 1927. The workmen's associations gave notice that the existing wage agreements would expire in April, 1927. Partial strikes occurred in various textile manufacturing centers that were provisionally settled by arbitration with the consent of both parties to enter immediately into negotiations concerning wages, working hours, holidays, and other factors. These negotiations are still pending. With a few exceptions, they have proved fruitless up to the present. In the Reichenbach (Silesian) cotton industry, the wage rates were increased by 9 per cent on March 3, 1927. Due to a strike embracing about 45,000 workmen in the "Lausitz" (Eastern Saxony)

¹ Report from George P. Waller, American consul in charge at Dresden, dated May 6, 1927.

cotton goods and blanket industry, wages were increased by about 5 per cent (provisional settlement). In general, the wage situation has departed from its stability of last year and become very active and restless. It is generally considered that an increase of textile wages, at least those for skilled workmen, by 10 per cent, will be necessary, due to the increase of rents by 10 per cent on April 1, 1927, and the new increase by another 10 per cent to take effect on October 1, 1927.

The table below shows the tariff wages per hour and per week for adult skilled and unskilled textile workers of the highest tariff class during January and February, 1927, as compared with those in the other principal German industries during the same period:

TABLE 1.—TARIFF WAGES PER HOUR AND PER WEEK OF SKILLED AND UNSKILLED WORKERS IN THE TEXTILE INDUSTRY AND OTHER GERMAN INDUSTRIES, JANUARY AND FEBRUARY, 1927

[Converted into United States currency on par basis]

Industry	Skilled workers ¹				Unskilled workers			
	Per hour		Per week ²		Per hour		Per week ³	
	Janu- ary, 1927	Febru- ary, 1927	Janu- ary, 1927	Febru- ary, 1927	Janu- ary, 1927	Febru- ary, 1927	Janu- ary, 1927	Febru- ary, 1927
Textile:								
Males	\$0.158	\$0.158	\$7.57	\$7.59	\$0.132	\$0.132	\$6.34	\$6.35
Females ⁴	.122	.122	5.88	5.88	.098	.098	4.68	4.71
Brewing ³	.246	.249	11.83	11.98	.216	.219	10.39	10.54
Candy and chocolate	.202	.202	9.70	9.70	.174	.174	8.38	8.38
Printing	.228	.228	10.96	10.96	.199	.199	9.56	9.56
Cardboard and paper boxes:								
Males	.184	.184	8.84	8.84	.157	.157	7.52	7.52
Females	.121	.121	5.81	5.81	.100	.100	4.80	4.80
Mining ³	.253	.254	12.14	12.18	.145	.145	8.61	8.64
Metals and machinery ³	.217	.217	10.86	10.86	.148	.148	7.40	7.40
Chemical ³	.203	.203	9.73	9.78	.171	.172	8.23	8.27
Building	.274	.274	13.10	13.10	.222	.222	10.62	10.62
Woodworking	.231	.233	10.98	11.07	.201	.203	9.56	9.63
Paper ³	.162	.162	7.78	7.79	.146	.146	7.00	7.00
Railways ⁴	.196	.196	10.57	10.57	.154	.154	8.34	8.34
Average, all industries	.226	.226	11.03	11.05	.159	.159	8.20	8.22

¹ In the mining, metal, and textile industries, piecework has been abolished.

² Generally 48 hours.

³ Including family allowances for male help for wife and two children up to 14 years of age.

⁴ Time wage, including local additions and family allowances.

Unemployment and Short-time Operation

UNEMPLOYMENT and short-time operation have reached a minimum in the textile industry throughout the German textile centers. In fact, in many special branches, for example in the Chemnitz hosiery and glove industry, and in the tricot goods industry, there exists an acute lack of skilled textile workers which it is hoped may be eliminated by the introduction of special day and night textile lectures and by the establishment of new textile schools. Pressure is also being exerted against the Government with a view of prohibiting the emigration of skilled textile workers to the United States and other foreign countries where important and actively competing textile industries are arising.

The number of totally unemployed textile workers decreased from 54,500 on August 30, 1926, to 24,500 on February 28, 1927. The number of short workers decreased from 139,000 on August 30, 1926, to 26,600 on February 28, 1927. Practically, the normal (pre-war) situation in the employment situation of the textile industry has been reached with these figures, taking into consideration that during the first years after the war many textile workers sought and found work in other more profitable industries, especially in the metal and electrical industries.

Table 2 shows the status of unemployment and short-time operation in the German textile industries, compared with the total unemployment and short-time operation figures in the other principal German industries on February 28, 1927.

TABLE 2.—EXTENT OF UNEMPLOYMENT AND SHORT-TIME OPERATION IN GERMAN TEXTILE AND OTHER GERMAN INDUSTRIES, FEBRUARY 28, 1927

Free unions	Member-ship	Totally unemployed		Short-time workers			Fully employed ¹
		Number	Per cent	Number	Per cent	Equivalent number of totally unemployed	
Textiles	357,300	24,500	6.9	26,600	7.5	1,600	91,500
Clothing industry and trade	82,900	16,200	19.5	10,900	13.1	2,900	77,600
Leather (finished goods)	97,100	16,200	16.7	11,800	12.1	3,300	80,000
Leather work (raw materials and half-finished goods)	44,300	4,600	10.4	1,500	3.4	700	88,900
Shoes	70,800	10,300	14.6	8,700	12.3	3,200	82,200
Foodstuffs	203,400	21,900	10.8	14,800	7.3	2,000	87,200
Tobacco	71,200	8,400	11.8	12,000	16.8	4,600	83,600
Book printers and binders	187,400	10,900	5.8	6,400	3.4	900	93,300
Ceramic	143,800	21,900	15.3	9,500	5.6	1,900	82,800
Glass	43,000	5,600	13.0	2,400	5.5	1,500	85,500
Porcelain	39,800	3,000	7.5	3,100	7.8	2,600	89,900
Mining	172,500	4,600	2.6	2,600	1.5	200	97,200
Metal working	753,800	108,800	14.4	71,400	9.5	1,900	83,700
Chemical and paper	216,800	27,300	12.6	12,400	5.7	1,500	85,900
Building	490,200	199,400	40.7	1,600	.3	100	59,200
Woodworking	270,000	55,300	20.5	22,500	8.3	2,000	77,500
Railway and postal employees	265,600	27,000	10.2	13,100	4.9	1,400	88,400
Other industries	319,300	21,000	6.6	5,600	1.8	400	93,000
Total	1,360,400	255,600	15.5	210,700	5.8	1,400	283,100
Jan. 31, 1927	3,557,300	585,700	16.5	234,300	6.6	1,600	81,900
Feb. 28, 1926	3,579,500	786,300	22.0	771,400	21.6	6,800	71,200

¹ Including short-time workers converted into equivalent number of fully employed.

² Not the exact sum of the items but as given in the report.

Wages in Madrid, Spain, 1914 and 1925

AVERAGE daily wages and hours of labor in Madrid, Spain, for the years 1914 and 1925, by industries and occupations, are shown in the following table, which is taken from the Spanish Statistical Yearbook.¹

¹ Spain. Ministerio de Trabajo, Comercio e Industria. Jefatura Superior de Estadística. Anuario estadístico de España, 1924-25. Madrid, 1926, p. 454.

AVERAGE DAILY WAGES AND HOURS OF LABOR IN MADRID, SPAIN, 1914 AND 1925, BY OCCUPATION

[Peseta at par = 19.3 cents; average exchange rate for 1925 was 14.3 cents]

Industry and occupation	1914		1925		Average daily wages in 1925 in United States currency
	Average daily wage	Average hours per day	Average daily wage	Average hours per day	
Metallurgical industry:			Pesetas	Pesetas	
Locksmiths (artistic work)	4.00- 6.00	9	9.00-12.00	8	\$1.20-\$1.72
Fitters and turners	4.00- 6.00	9	10.00-14.00	8	1.43- 2.00
Solderers	4.00- 6.00	9	9.00-12.00	8	1.29- 1.72
Braziers	4.00- 5.00	9	9.00-12.00	8	1.29- 1.72
Bronze workers	4.00- 6.00	9	9.00-12.00	8	1.29- 1.72
Silversmiths	7.00	9	9.00-12.00	8	1.29- 1.72
Engravers	8.00-10.00	9	15.00-20.00	8	2.15- 2.86
Metal polishers	7.00	9	8.00-10.00	8	1.44- 1.48
Blacksmiths	4.00- 8.00	10	6.00- 8.00	8	.80- 1.14
Molders, iron and metal	5.00- 7.00	9	9.00-12.00	8	1.29- 1.72
Construction industry:					
Bricklayers	4.50- 5.00	18-19	10.00	8	1.43
Pavement layers	6.00- 6.50	8	15.20	8	2.17
Mosaic workers	3.50	9	10.25	8	1.47
Tile workers	4.50	8	12.00	8	1.72
Ornamental sculptors	9.50-10.00	8	16.00-20.00	8	2.23- 2.56
Stucco plasterers	6.00	8	12.50	8	1.70
Hydraulic engineers and glass blowers	4.50- 5.00	9	10.75	8	1.54
Gas and electric workers	6.50	9	12.00	8	1.72
Marble setters	4.50- 5.00	8	12.50	8	1.70
Stove makers	5.00- 8.00	9	12.00	8	1.72
Painters-decorators	4.35	8	12.50	8	1.70
Sewermen	4.50	8	11.00	8	1.57
Tile makers	3.00	11	6.80-10.00	8	.97- 1.43
Carpenters	4.50- 5.00	9	9.45-10.80	8	1.35- 1.54
Printing industry (book):					
Machinists	6.50	9	11.00-13.00	8	1.57- 1.86
Markers	3.50	9	7.50- 9.00	8	1.07- 1.29
Stereotypers	4.50	9	12.25-12.58	8	1.75- 1.90
Platen pressmen	4.50	9	12.25	8	1.75
Proof readers	5.00	9	14.50	8	2.07
Lithographers	8.00-10.00	9	13.00-25.00	8	1.86- 3.38
Food industry: Bakers	6.00- 7.50	(?)	9.00-14.00	(?)	1.29- 2.00

¹ In winter.² In summer.³ No specified hours

STABILIZATION OF EMPLOYMENT

Seasonal Character of the Construction Industry in Ohio

A STUDY of the extent of seasonality of operations in the various building trades in Ohio, covering the years 1914 to 1924, involving the importance of the construction industry in that State, the influence of weather conditions on construction activities, and a suggested remedy for seasonal employment in a branch of industry which in 1923 ranked third among the leading groups of industry measured by total pay roll reported to the Ohio Industrial Commission, was made at the request of the executive committee of the Ohio State Association of Builders' Exchanges; and a report of this investigation has recently been issued.¹

The report aims to show that the building industry, which has been termed the "balance wheel of American business," instead of being regular in its movements and oscillating about a center as a balance wheel is expected to do, is "decidedly off center" and that "this seasonality is not necessary under the circumstances but is the carry-over of the customs and technique of a former period."

This industry in Ohio in 1925 handled construction contracts amounting to \$451,000,000, in 1924 paid 7.83 per cent of the total wages paid by all industry in the State, and in the same year had raised the percentage of those receiving \$35 or more per week to 47.1 as compared with 1.3 in 1914. It is noted that while the building industry is one of the largest in the country, the typical construction firm is a small one and there appears to be no tendency to increase in size. Thus, in Ohio, in 1924 as compared with 1914, there was in all cases an increase in the pay roll of the average firm but a decrease in the average number of wage earners employed. In 1914, a total of \$11,222 was paid to workers the number of whom averaged 19.9 per firm, while in 1924 the pay-roll total had increased to \$17,533, or 56.2 per cent, and the average number of workers had decreased to 11.6 or 41.7 per cent.

The importance of the industry in the State is indicated by the following table, giving a comparison of wage and salary payments in all industries and in the construction industry.

TABLE 1.—COMPARISON OF AVERAGE WAGE AND SALARY PAYMENTS OF THE CONSTRUCTION INDUSTRY AND OF ALL INDUSTRIES IN OHIO, 1914 to 1924 (EXCEPT 1922)

Year	Wage and salary payments		
	All industries	Construction industry	
		Amount	Per cent of total
1914	\$29,844	\$11,222	37.6
1915	29,226	10,342	35.4
1916	37,161	13,112	35.3
1917	43,967	14,983	34.1
1918	52,859	16,647	31.5
1919	57,777	17,847	30.9
1920	66,089	23,808	36.0
1921	47,784	15,607	32.7
1923	61,606	19,254	31.3
1924	52,611	17,533	33.3

¹ Ohio State University. College of Commerce and Journalism. Bureau of Business Research. The construction industry in Ohio, a statistical analysis of a seasonal industry. [Columbus], 1926.

The report gives a rather detailed statistical analysis (including charts) of construction records in the principal cities of the State in order to show the significance of the industry and the extent of its seasonal peaks and recessions, which are shown by the charts to be quite irregular.

Extent of Employment in the Building Industry

THE influence of the weather on the construction industry is of course the chief cause of its seasonal character, and this study attempts to measure the effect of the climatic factor in the State of Ohio. A highly fluctuating seasonal activity is recognized as a great economic waste, and this is found in the construction industry probably more than in any other major industry. It is essentially an outdoor industry and it is entirely natural that it should experience an intense activity during warm months and a dull period during winter months. However, many contractors seem to think that this seasonal factor is the result of custom and may in some measure be avoided. A careful summary of weather conditions in three representative cities of the State (compiled from U. S. Weather Bureau records) during the period 1909 to 1925, covering the daylight hours and including a determination of factors which would in all probability interfere with construction work, such as ice, snow, rain, and temperature, is contained in the report to show just how much climatic conditions in that State may be expected to influence building operations, especially as measured by monthly fluctuations in employment. Thus, during January and February, covering the years 1914 to 1924, inclusive, on the average, only slightly above one-half of the workers in the industry are employed, while less than three-fourths are employed on the average during five months of the year, and during only four months of the year are practically all (more than 95 per cent) of the wage earners employed. In short, the fluctuation of employment in this industry due to climatic conditions is such that during the average year only 81 per cent of all wage earners are employed, and the average man has a chance to work only about nine months in the year. When part-time work is taken into consideration (and an accurate measure of this is not available) it is probable, says the report, that the actual extent of employment during the winter months is less than indicated, thus reducing the percentage of employment to a figure even lower than 81 per cent—probably to 75 per cent or less.

This suggests that if the normal seasonal peaks and troughs could be smoothed out, there would be an oversupply of wage earners. It has been suggested in some quarters that the present restrictive immigration law is resulting in a severe shortage of laborers for the construction industry. In view of the highly seasonal fluctuations of employment in the industry in Ohio, as above outlined, and in further consideration of the fact that experience shows conclusively that winter construction is practical, the evidence points rather to an overmanned industry than to a shortage of wage earners.

Seasonal fluctuations in the different groups of the building industry are considered in detail, with figures showing the average percentage of employment in each.

The following table shows the average percentages of employment and unemployment during the years 1914 to 1924, inclusive, based

on the greatest number of wage earners reported in construction work in 1924, namely 85,301.

TABLE 2.—ESTIMATED AVERAGE PER CENT OF EMPLOYMENT AND UNEMPLOYMENT AND AVERAGE NUMBER UNEMPLOYED IN THE CONSTRUCTION INDUSTRY, 1914 TO 1924, BY MONTHS

Month	Average per cent of employment	Average per cent of unemployment	Average number unemployed
January	55.7	44.3	37,778
February	53.6	46.4	39,580
March	59.6	40.4	34,462
April	73.1	26.9	22,946
May	81.7	18.3	15,610
June	91.4	8.6	7,336
July	96.6	3.4	2,900
August	99.9	.1	85
September	100.0	.0	0
October	97.2	2.8	2,388
November	89.2	10.8	9,213
December	74.2	25.8	22,008
Annual average	81.0	19.0	16,207

The economic loss occasioned by seasonal fluctuations in employment can not be accurately determined. The report states in this connection:

It can be pointed out, of course, that the seasonal percentages of employment of wage earners can be applied to building employers also. When so applied it can be said that these figures indicate percentages of activity of the average construction employer. Not only is the employer subjected to a loss of business in the dull months, but his whole organization suffers because of his inability to keep this organization intact. The result is that he must build up a new organization each spring. The chaotic conditions in the building industry are notorious and this factor of seasonality in activity is probably the greatest contributing cause. There is a further loss in that much work must be crowded into the busy season, resulting in feverish activity and the frequent use of unskilled or semi-skilled workmen for tasks which demand skilled craftsmen for proper performance. The losses occasioned by crowding all building activity into the warm season are, in the last analysis, borne by the public.

The Remedy

THE practicability of winter construction is pointed out, being amply supported by the experience of construction firms throughout the country. The technique of construction has assisted in this respect, for now many processes incident to the work may be carried on within doors and delivered to the job ready to be installed, and protection of workers has been developed so that many operations may be carried on during cold weather. These considerations have led to a great increase in the volume of winter building in most of the larger cities of the country in recent years.

Winter work involves some additional cost, estimated at from 1 to 5 per cent of the total cost of the project, and there are fewer working-days, but these disadvantages are somewhat offset by the facts that labor productivity is greater because men are anxious to hold their jobs during cold weather, that material may often be purchased cheaper and more readily delivered because of less freight congestion, that the best labor is obtainable because the supply

usually exceeds the demand during the winter months, and that workmen are more efficient because not subject to the lassitude prevalent during the heat of summer.

The smoothing out of the seasonal curve in the construction industry may be accomplished, in part at least, if contractors will plan to commence their various projects in accordance with the available labor supply so as to take advantage of seasons of underemployment, with due consideration for the approximate time each craft will be required and the sequence of their operations. In this way labor may be kept employed more or less continuously and a material saving in cost would result. It appears that the building industry itself is convinced of the practicability of winter construction and Government and civic agencies are striving to regulate employment, but the reason why the seasonal curve of employment in this industry continues from year to year to rise during warm weather and to fall during the winter months is because, according to the report, the building public is not convinced of the desirability of winter construction. The immediate responsibility, however, would seem to rest upon those in control of the building industry.

In the last analysis, it is the public which builds and repairs structures; which must decide when such work is to be done. Construction firms operate on a contract basis and the owner's wishes are paramount. While the ultimate responsibility rests with the public, the immediate responsibility rests with the building industry. The executives of the building industry constitute the only managerial group directly affected by this problem. The question as to continuous or seasonally fluctuating activity is a managerial problem and the solution of the problem must be initiated by the executives of the building industry. It is this group which must bring to the notice of the building public the advantages of winter construction to the end that seasonal irregularity may be reduced to a minimum.

TREND OF EMPLOYMENT

Employment in Selected Manufacturing Industries in May, 1927

EMPLOYMENT and pay-roll totals in manufacturing industries decreased 1 per cent each in May, 1927, as compared with April. This decrease in employment was largely seasonal and was smaller than in any year since 1923, when the volume of employment was unchanged from April to May.

The level of employment in each month of 1927 has been below the level of the same month of 1926, but in May, 1927, the difference was less than in any previous month and pay-roll totals had actually reached the level of May, 1926, despite the smaller volume of employment, this condition resulting in an increase in per capita earnings of 2.2 per cent in May, 1927, as compared with per capita earnings in May, 1926.

The bureau's weighted index of employment for May, 1927, is 89.7 as compared with 90.6 for April, 1927, 91.4 for March, 1927, and 91.7 for May, 1926; the weighted index of pay-roll totals for May, 1927, is 95.6 as compared with 96.6 for April, 1927, 97.7 for March, 1927, and 95.6 for May, 1926.

The May, 1927, report is based on returns from 10,768 establishments in 54 of the principal manufacturing industries. These establishments in May had 3,071,266 employees, whose combined earnings in one week were \$83,633,965.

Comparison of Employment and Pay-Roll Totals in April and May, 1927

SEVENTEEN of the 54 separate industries had more employees in May, 1927, than in April, while 26 industries reported increased pay-roll totals. The increases in employment were largely in such seasonal industries as ice cream, sugar refining, cast-iron pipe, structural ironwork, sawmills, cement, brick, carriages, automobiles, and automobile tires. There was a seasonal drop in employment in the fertilizer industry of 36.8 per cent, followed by losses of over 5 per cent each in the women's clothing and the millinery industries and of over 3.5 per cent each in the chemical and the shipbuilding industries. The iron and steel industry reported a decrease of 0.9 per cent in employment and of 5.4 per cent in pay-roll totals.

Notable advances in employment were made in May in four groups of industries—food; lumber; stone, clay, and glass products; and tobacco—and there was a small increase in the vehicle group. The decreases in employment in the remaining seven groups were led by a drop of over 10 per cent in the chemical group. The textile, iron and steel, and leather groups, and the group of miscellaneous industries, each lost about $1\frac{1}{2}$ per cent of their employees.

Improvement in employment in May over April was made in the Pacific, Mountain, and West North Central geographic divisions. The East North Central division shows a very small decrease in employment, but the remaining five divisions each lost about $1\frac{1}{2}$ per cent of their employees.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN APRIL AND MAY, 1927

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		April, 1927	May, 1927		April, 1927	May, 1927	
Food and kindred products	1,629	207,172	208,970	(1)	\$5,305,181	\$5,476,186	(1)
Slaughtering and meat packing	179	80,322	81,230	+1.2	2,055,383	2,135,366	+3.9
Confectionery	268	27,978	27,659	-1.1	519,042	532,279	+2.6
Ice cream	195	9,113	9,929	+9.0	300,055	324,334	+8.1
FLOUR	325	14,450	14,779	+2.3	372,688	390,279	+4.7
Baking	648	65,535	65,219	-0.5	1,770,045	1,786,777	+0.9
Sugar refining, cane	14	9,774	10,134	+3.7	287,968	307,151	+6.7
Textiles and their products	1,903	617,321	609,745	(1)	12,220,471	12,100,349	(1)
Cotton goods	485	240,346	239,267	-0.4	3,982,167	3,966,427	-0.4
Hosiery and knit goods	238	83,390	82,721	-0.8	1,619,855	1,632,790	+0.8
Silk goods	107	57,539	57,049	-0.9	1,207,075	1,232,111	+2.1
Woolen and worsted goods	195	62,336	60,920	-2.3	1,356,239	1,350,107	-1.2
Carpets and rugs	32	21,845	24,519	+1.3	655,480	666,263	+1.5
Dyeing and finishing textiles	100	32,163	31,584	-1.8	803,756	769,038	-4.3
Clothing, men's	282	61,045	60,189	-1.4	1,364,596	1,364,031	(2)
Shirts and collars	92	19,700	19,518	-0.9	326,497	324,124	-0.7
Clothing, women's	205	23,844	22,483	-5.7	603,588	535,022	-11.4
Millinery and lace goods	76	12,113	11,495	-5.1	291,259	269,427	-7.5
Iron and steel and their products	1,827	682,314	673,229	(1)	20,712,568	20,097,456	(1)
Iron and steel	210	279,625	277,069	-0.9	8,930,717	8,448,178	-5.4
Cast-iron pipe	49	14,560	14,846	+1.9	361,455	363,498	+0.6
Structural ironwork	153	22,336	22,415	+0.4	632,172	658,382	+4.1
Foundry and machine-shop products	1,001	251,340	246,115	-2.1	7,533,846	7,404,075	-1.7
Hardware	63	30,782	30,338	-1.4	786,376	767,973	-2.3
Machine tools	153	30,268	29,475	-2.6	912,321	906,557	-0.7
Steam fittings and steam and hot-water heating apparatus	113	39,229	38,738	-1.3	1,152,693	1,150,528	-0.2
Stoves	85	14,165	14,233	+0.5	402,486	398,265	-1.0
Lumber and its products	1,126	211,929	213,767	(1)	4,051,600	4,762,243	(1)
Lumber, sawmills	404	119,615	122,872	+2.7	2,358,606	2,507,193	+6.3
Lumber, millwork	244	30,249	30,225	-0.1	742,906	757,187	+1.9
Furniture	418	62,065	60,670	-2.2	1,550,148	1,497,863	-3.4
Leather and its products	373	121,929	119,668	(1)	2,798,244	2,717,758	(1)
Leather	134	28,058	27,037	-3.6	704,373	692,797	-1.6
Boots and shoes	239	93,871	92,031	-2.0	2,093,871	2,024,961	-3.3
Paper and printing	929	173,589	177,854	(1)	5,844,123	5,821,384	(1)
Paper and pulp	221	59,132	57,870	-2.1	1,565,355	1,541,196	-1.5
Paper boxes	188	20,134	19,931	-1.0	453,793	450,065	-0.8
Printing, book and job	309	50,003	48,853	-2.5	1,774,428	1,763,234	-0.6
Printing, newspapers	211	50,230	50,200	-0.1	2,050,547	2,066,769	+0.8
Chemicals and allied products	315	98,507	91,200	(1)	2,885,936	2,680,392	(1)
Chemicals	132	32,590	31,433	-3.6	898,690	875,127	-2.6
Fertilizers	124	12,761	8,063	-36.8	237,988	156,234	-34.3
Petroleum refining	62	53,156	51,713	-2.7	1,749,308	1,658,031	-5.2
Stone, clay, and glass products	680	114,864	116,100	(1)	3,079,663	3,166,884	(1)
Cement	98	25,932	26,551	+2.4	775,585	832,994	+7.4
Brick, tile, and terra cotta	405	34,485	35,962	+4.3	887,986	957,058	+7.8
Pottery	59	13,571	13,310	-1.9	308,754	341,504	+7.4
Glass	118	40,876	40,277	-1.5	1,047,338	1,035,338	-1.1
Metal products, other than iron and steel	213	53,144	52,335	(1)	1,380,722	1,435,586	(1)
Stamped and enameled ware	70	20,770	20,271	-2.4	524,056	518,970	-1.0
Brass, bronze, and copper products	143	32,374	32,464	+0.3	865,666	916,618	+5.9
Tobacco products	183	42,557	42,895	(1)	714,462	764,123	(1)
Chewing and smoking tobacco and snuff	30	8,402	8,253	-1.8	126,980	131,232	+3.4
Cigars and cigarettes	153	34,155	34,642	+1.4	587,532	632,891	+7.7

¹ The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

² Less than one-tenth of 1 per cent.

DUE

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TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN APRIL AND MAY, 1927—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		April, 1927	May, 1927		April, 1927	May, 1927	
Vehicles for land transportation							
Automobiles	1,187	506,213	507,612	(1)	\$16,707,163	\$16,868,173	(1)
Carriages and wagons	203	337,903	338,816	+0.3	11,606,122	11,676,475	+0.6
Car building and repairing, electric railroad	66	1,808	1,827	+1.1	40,625	40,407	-0.5
Car building and repairing, steam railroad	391	26,599	26,273	-1.2	821,322	826,902	+0.7
	527	189,912	140,096	+0.1	4,239,034	4,324,388	+2.0
Miscellaneous industries							
Agricultural implements	401	258,923	258,082	(1)	7,747,630	7,725,439	(1)
Electrical machinery, apparatus, and supplies	88	25,900	25,219	-2.7	748,858	737,870	-1.5
Pianos and organs	164	118,558	117,541	-0.9	3,516,004	3,516,981	+0.3
Rubber boots and shoes	40	6,977	6,846	-1.9	201,958	203,385	+0.7
Automobile tires	10	17,552	17,677	+0.7	438,114	451,619	+3.1
Shipbuilding, steel	59	57,047	59,192	+3.8	1,836,935	1,882,635	+2.5
	40	32,879	31,607	-3.9	1,005,821	932,949	-7.2
All industries	10,763	3,094,460	3,071,266	(1)	\$4,056,821	\$3,633,965	(1)

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION							
New England	1,413	428,300	422,676	-1.3	\$10,340,960	\$10,399,373	+0.6
Middle Atlantic	2,572	867,659	854,912	-1.5	24,951,336	24,448,473	-2.0
East North Central	2,843	1,014,690	1,012,882	-0.2	31,210,456	31,152,577	-0.2
West North Central	1,044	157,578	159,318	+0.9	4,048,356	4,144,225	+2.4
South Atlantic	1,124	288,036	283,539	-1.6	5,482,532	5,355,178	-2.3
East South Central	473	106,863	105,283	-1.5	2,113,382	2,078,227	-1.7
West South Central	466	87,964	86,652	-1.5	1,870,796	1,892,600	+1.2
Mountain	176	26,045	26,879	+3.2	743,142	767,437	+3.3
Pacific	657	117,625	119,125	+1.8	3,295,861	3,395,875	+3.0
All divisions	10,763	3,094,460	3,071,266	(1)	\$4,056,821	\$3,633,965	(1)

¹ The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

² Less than one-tenth of 1 per cent.

TABLE 2.—PER CENTS OF CHANGE, APRIL TO MAY, 1927—12 GROUPS OF INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, April, 1927, to May, 1927		Group	Per cent of change, April, 1927, to May, 1927	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	+0.7	+3.0	Metal products, other than iron and steel	-0.4	+4.2
Textiles and their products	-1.7	-2.1	Tobacco products	+1.0	+7.1
Iron and steel and their products	-1.5	-3.0	Vehicles for land transportation	+0.1	+1.2
Lumber and its products	+1.2	+3.6	Miscellaneous industries	-1.6	-3.5
Leather and its products	-1.8	-2.9	All industries	-1.0	-1.0
Paper and printing	-0.8	-0.4			
Chemicals and allied products	-10.4	-8.5			
Stone, clay, and glass products	+1.1	+2.0			

DUE

Comparison of Employment and Pay-roll Totals in May, 1927, with May, 1926

THE volume of employment was 2.2 per cent smaller in May, 1927, than in May, 1926, although pay-roll totals were unchanged.

The textile group of industries as a whole was in a decidedly better condition in May, 1927, than in the same month of the previous year, the notable improvement shown in cotton, silk, and woolen goods and in women's clothing having more than overcome the large losses in employment in the shirt and collar and the millinery industries. There was a slight improvement in the paper and printing group, the gains in the printing industries being somewhat larger than the losses in the paper-making and the paper-box industries. The most conspicuous advance over the year's interval was in the group of miscellaneous industries, caused by the spectacular increases in shipbuilding and in the automobile-tire industry, although the losses in employment in the piano and the agricultural implement industries and in electrical goods establishments had been marked. The food group of industries as a whole shows little change, increases in the flour and the baking industries and in slaughtering being overcome by a large decrease in ice cream, an effect of the cool May of 1927, and a smaller decrease in the confectionery industry.

The iron and steel group made a net loss in employment in this comparison of nearly 5 per cent, each of the eight separate industries having fallen off sharply. Other industries connected with building operations also fell off noticeably, and the chemical industries reported an average loss in employment of 1 per cent.

Employment in the South Atlantic geographic division was nearly 3 per cent greater in May, 1927, than in May, 1926, although both of the South Central divisions reported largely depleted forces, as did the remaining six divisions. Four divisions, including the South Atlantic, reported increased pay-roll totals.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, MAY, 1927, WITH MAY, 1926

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change, May, 1927, com- pared with May, 1926		Industry	Per cent of change, May, 1927, com- pared with May, 1926	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	-0.2	+1.0	Textiles and their products—		
Slaughtering and meat packing	+0.8	+2.1	Continued.		
Confectionery	-3.6	-1.4	Carpets and rugs	-4.6	+5.7
Ice cream	-8.0	-8.7	Dyeing and finishing tex- tiles	+1.0	+3.5
Flour	+3.8	+4.7	Clothing, men's	-2.1	-2.5
Baking	+0.6	+1.2	Shirts and collars	-7.2	-6.5
Sugar refining, cane	-0.1	+0.4	Clothing, women's	+5.3	+6.5
Textiles and their products	+1.3	+4.7	Millinery and lace goods	-9.4	-6.3
Cotton goods	+4.2	+11.3	Iron and steel and their products		
Hosiery and knit goods	-0.8	+4.0	Iron and steel	-4.9	-4.8
Silk goods	+2.8	+4.0	Cast-iron pipe	-4.6	-3.8
Woolen and worsted goods	+1.3	+3.2		-4.6	-5.8

DUE . . .

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TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, MAY, 1927, WITH MAY, 1926—Continued

Industry	Per cent of change, May, 1927, com- pared with May, 1926		Industry	Per cent of change, May, 1927, com- pared with May, 1926	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Iron and steel and their products—Continued.					
Structural ironwork	-3.6	-4.3	Stone, clay, and glass products—Continued.		
Foundry and machine-shop products	-4.6	-5.3	Pottery	-4.2	-6.8
Hardware	-6.9	-7.6	Glass	-4.5	-3.8
Machine tools	-5.8	-4.7	Metal products, other than iron and steel		
Steam fittings and steam and hot-water heating apparatus	-7.9	-6.5	Stamped and enameled ware	-5.1	-4.8
Stoves	-6.0	-6.4	Brass, bronze, and copper products	-10.6	-5.1
Lumber and its products	-8.8	-5.7		-2.7	-4.6
Lumber, sawmills	-10.2	-7.2	Tobacco products		
Lumber, millwork	-10.0	-8.6	Chewing and smoking tobacco and snuff	-1.9	+1.6
Furniture	-3.8	+1.0	Cigars and cigarettes	-5.0	-4.4
Leather and its products	-0.2	+3.0		-1.3	+2.5
Leather	-2.1	-3.5	Vehicles for land transportation		
Boots and shoes	+0.5	+6.3	Automobiles	-7.1	-2.7
Paper and printing	+0.2	+1.4	Carriages and wagons	-2.7	+0.9
Paper and pulp	-4.4	-3.9	Car building and repairing, electric-railroad	-18.1	-14.0
Paper boxes	-3.3	-2.0	Car building and repairing, steam-railroad	-1.8	+0.4
Printing, book and job	+1.6	+2.7		-10.6	-5.6
Printing, newspapers	+4.0	+5.5	Miscellaneous industries		
Chemicals and allied products	-1.0	+0.3	Agricultural implements	+4.9	+9.1
Chemicals	-1.0	+3.2	Electrical machinery, apparatus, and supplies	-9.7	-8.3
Fertilizers	-1.4	-2.0	Pianos and organs	-4.1	-0.6
Petroleum refining	-1.2	-2.7	Rubber boots and shoes	-11.4	-14.0
Stone, clay, and glass products	-3.3	-2.9	Automobile tires	-2.1	+3.1
Cement	-2.6	+3.7	Shipbuilding, steel	+7.6	+12.1
Brick, tile, and terra cotta	-2.2	(1)		+14.3	+11.7
			All industries	-2.2	(1)

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION			GEOGRAPHIC DIVISION—contd.		
New England	-3.3	-0.8	West South Central	-4.3	+1.3
Middle Atlantic	-5.2	-4.1	Mountains	-2.0	+0.6
East North Central	-1.2	+1.7	Pacific	-3.6	(1)
West North Central	-1.5	-0.5			
South Atlantic	+2.9	+4.6	All divisions	-2.2	(1)
East South Central	-6.8	-4.8			

(1) No change.

Per Capita Earnings

PER CAPITA earnings in the 54 industries combined in May, 1927, were unchanged from April, 1927, and 2.2 per cent higher than in May, 1926.

Thirty-seven industries showed a gain in per capita earnings in May, 1927, as compared with April, 1927, and 41 showed a gain as compared with May, 1926.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, MAY, 1927, WITH APRIL, 1927, AND MAY, 1926

Industry	Per cent of change May, 1927, compared with—		Industry	Per cent of change May, 1927, compared with—	
	April, 1927	May, 1926		April, 1927	May, 1926
Cigars and cigarettes.....	+6.2	+3.8	Woolen and worsted goods.....	+1.1	+1.8
Brass, bronze, and copper products.....	+5.6	-2.2	Chemicals.....	+0.9	+4.0
Chewing and smoking tobacco and snuff.....	+5.2	+0.4	Electrical machinery, apparatus, and supplies.....	+0.9	+3.8
Cement.....	+4.9	+6.5	Printing, newspapers.....	+0.9	+1.4
Fertilizers.....	+3.9	-0.8	Paper and pulp.....	+0.6	+0.4
Structural ironwork.....	+3.8	-0.7	Foundry and machine-shop products.....	+0.4	-0.8
Confectionery.....	+3.7	+1.9	Glass.....	+0.4	+0.5
Lumber, sawmills.....	+3.4	+3.5	Automobiles.....	+0.3	+3.3
Brick, tile, and terra cotta.....	+3.3	+2.5	Paper boxes.....	+0.2	+1.2
Carpets and rugs.....	+3.0	+9.3	Shirts and collars.....	+0.2	+0.6
Silk goods.....	+3.0	+1.3	Cotton goods.....	+0.1	+7.1
Sugar refining, cane.....	+2.9	+0.7	Leather.....	-0.1	-1.7
Slaughtering and meat packing.....	+2.7	+1.4	Printing, book and job.....	-0.1	+1.1
Pianos and organs.....	+2.6	-3.2	Ice cream.....	-0.8	-0.8
Flour.....	+2.4	+1.1	Hardware.....	-0.9	-0.7
Rubber boots.....	+2.4	+5.2	Automobile tires.....	-1.2	+4.2
Lumber, millwork.....	+2.0	+1.7	Furniture.....	-1.2	+2.6
Machine tools.....	+2.0	+1.1	Cast-iron pipe.....	-1.3	-1.3
Car building and repairing, electric railroad.....	+1.9	+2.2	Boots and shoes.....	-1.4	+5.5
Car building and repairing, steam railroad.....	+1.9	+5.4	Stoves.....	-1.5	-0.5
Hosiery and knit goods.....	+1.6	+5.1	Carriages and wagons.....	-1.6	+5.0
Stamped and enameled ware.....	+1.5	+6.3	Millinery and lace goods.....	-2.5	+3.0
Baking.....	+1.4	+0.7	Dyeing and finishing textiles.....	-2.6	+2.1
Clothing, men's.....	+1.4	-0.3	Petroleum refining.....	-2.6	-1.7
Agricultural implements.....	+1.2	+1.4	Shipbuilding, steel.....	-3.5	+2.0
Steam fittings and steam and hot-water heating apparatus.....	+1.1	+1.5	Iron and steel.....	-4.5	+0.6
			Pottery.....	-5.6	-2.8
			Clothing, women's.....	-6.0	+1.2

Wage Changes

THIRTY-FOUR establishments in 16 industries reported increases in wage rates during the month ending May 15, 1927. These increases averaged 6.2 per cent and affected 1,245 employees or 14 per cent of the total number in the establishments concerned.

Twenty-one establishments in 11 industries reported decreases in wage rates during the same period. The decreases averaged 6.4 per cent and affected 3,722 employees or 55 per cent of all employees in the establishments concerned.

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TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN APRIL 15 AND MAY 15, 1927

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
Increases							
Slaughtering and meat packing.	179	1	6	6.0	117	7	(1)
Baking.	648	6	0.5-10	5.6	53	22	(1)
Silk goods.	197	1	7	7.0	36	6	(1)
Structural ironwork.	153	4	8 -15	10.6	12	10	(1)
Foundry and machine-shop products.	1,001	3	5 -11.8	11.2	34	7	(1)
Machine tools.	153	1	20	20.0	3	25	(1)
Stoves.	85	1	3.3	3.3	75	30	1
Lumber, sawmills.	464	1	5	5.0	20	14	(1)
Furniture.	418	1	9	9.0	17	9	(1)
Paper and pulp.	221	1	1	1.0	40	10	(1)
Paper boxes.	188	1	10	10.0	10	9	(1)
Printing, book and job.	309	2	10 -29	20.1	15	7	(1)
Brick, tile, and terra cotta.	405	4	5 -12.5	6.3	299	91	1
Pottery.	59	1	5	5.0	5	7	(1)
Automobiles.	203	3	5 -10	7.0	395	17	(1)
Electrical machinery, apparatus, and supplies.	164	3	1 - 8	3.1	117	7	(1)
Decreases							
Slaughtering and meat packing.	179	2	10 -20	12.8	43	52	(1)
Hosiery and knit goods.	238	1	10	10.0	101	100	(1)
Silk goods.	197	2	8	8.0	545	83	1
Clothing, women's.	205	1	15	15.0	42	66	(1)
Millinery and lace goods.	76	1	8	8.0	20	67	(1)
Iron and steel.	210	6	1.5 - 3	2.5	1,482	39	1
Lumber, sawmills.	464	3	5 -10	9.3	815	77	1
Furniture.	418	1	10	10.0	3	7	(1)
Leather.	134	1	10	10.0	416	68	2
Brick, tile, and terra cotta.	405	2	7 - 7.2	7.1	252	95	1
Brass, bronze, and copper products.	143	1	10	10.0	3	11	(1)

¹ Less than one-half of 1 per cent.

Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

INDEX numbers for May, 1927, and for March and April, 1927, and May, 1926, showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 industries surveyed by the Bureau of Labor Statistics, together with general indexes for the combined 12 groups of industries, appear in Table 6.

The general index of employment for May, 1927, is 89.7, this number being 1 per cent lower than the index for April, 1927, 1.9 per cent lower than the index for March, 1927, and 2.2 per cent lower than the index for May, 1927. The general index of pay-roll totals for May, 1927, is 95.6, this number being 1 per cent lower than the index for April, 1927, 2.1 per cent lower than the index for March, 1927, and unchanged from the index for May, 1926.

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—MAY, 1926, AND MARCH, APRIL, AND MAY, 1927

[Monthly average, 1923=100]

Industry	Employment				Pay-roll totals			
	May, 1926	March, 1927	April, 1927	May, 1927	May, 1926	March, 1927	April, 1927	May, 1927
								95.6
General index								
Food and kindred products	86.8	87.2	86.0	86.6	91.8	91.0	90.0	92.7
Slaughtering and meat packing	77.8	79.2	77.5	78.4	81.4	80.6	80.0	83.1
Confectionery	77.8	79.3	75.9	75.0	85.6	89.0	82.2	84.4
Ice cream	104.1	83.4	87.9	95.8	112.6	90.1	95.1	102.8
Flour	81.2	85.5	82.4	84.3	83.5	86.4	83.5	87.4
Baking	99.9	101.1	101.0	100.5	106.1	107.1	106.5	107.4
Sugar refining, cane	96.5	89.9	93.0	96.4	100.4	91.5	94.5	100.8
Textiles and their products	85.7	89.7	88.3	86.8	83.1	94.0	88.9	87.0
Cotton goods	83.8	87.8	87.6	87.3	79.8	90.4	89.1	88.8
Hoosiery and knit goods	98.4	98.2	98.3	97.6	111.2	116.5	114.8	115.7
Silk goods	97.6	101.3	101.2	100.3	104.1	111.5	106.0	108.3
Woolen and worsted goods	76.8	82.1	79.7	77.8	74.1	80.7	77.4	76.5
Carpets and rugs	93.8	91.3	90.7	89.5	85.8	93.0	89.2	90.7
Dyeing and finishing textiles	97.3	100.0	100.1	98.3	97.9	107.1	105.8	101.3
Clothing, men's	80.2	85.1	79.6	78.5	69.1	81.4	67.4	67.4
Shirts and collars	84.4	80.3	79.0	78.3	86.6	83.6	81.6	81.0
Clothing, women's	81.1	93.3	90.6	85.4	77.3	102.7	92.9	82.3
Millinery and lace goods	77.0	74.4	73.5	69.3	77.6	78.9	78.5	72.7
Iron and steel and their products	92.6	90.3	89.4	88.1	98.2	97.8	96.4	93.5
Iron and steel	98.9	95.6	95.3	94.4	103.1	104.0	104.9	99.2
Cast-iron pipe	106.6	99.4	99.8	101.7	110.5	101.9	103.5	104.1
Structural ironwork	98.0	93.5	94.2	94.5	106.5	100.4	97.9	101.9
Foundry and machine-shop products	87.2	86.3	85.0	83.2	92.1	91.8	88.7	87.2
Hardware	89.0	84.9	84.1	82.9	99.3	96.3	94.0	91.8
Machine-tools	102.1	100.7	98.8	96.2	112.4	112.1	107.8	107.1
Steam fittings and steam and hot-water heating apparatus	97.6	90.9	91.0	89.9	102.7	98.1	96.2	96.0
Stoves	86.0	82.1	80.4	80.8	87.9	84.6	83.1	82.3
Lumber and its products	91.9	82.9	82.8	83.8	98.3	90.6	89.5	92.7
Lumber, sawmills	89.5	77.9	78.3	80.4	96.4	85.2	84.2	89.5
Lumber, millwork	98.9	88.2	89.0	89.0	105.9	92.7	95.0	96.8
Furniture	95.9	96.9	94.4	92.3	99.9	107.8	104.4	100.9
Leather and its products	85.7	91.6	87.1	85.5	79.4	90.0	84.2	81.8
Leather	89.3	92.9	88.8	87.4	91.6	94.3	89.9	88.4
Boots and shoes	84.5	91.2	86.6	84.9	74.5	88.3	81.9	79.2
Paper and printing	162.6	104.4	103.6	102.8	111.0	114.2	113.6	112.6
Paper and pulp	96.4	94.3	94.2	92.2	102.7	102.0	100.2	98.7
Paper boxes	97.6	95.9	95.3	94.4	106.3	106.0	105.0	104.2
Printing, book and job	102.0	106.5	104.1	103.6	112.2	119.6	115.9	115.2
Printing, newspapers	111.4	115.8	116.0	115.9	119.0	122.9	124.6	125.6
Chemicals and allied products	95.3	105.0	105.2	94.3	100.0	110.0	109.5	100.2
Chemicals	94.1	96.9	96.7	93.2	102.7	110.6	108.8	106.0
Fertilizers	91.2	134.6	142.3	80.9	97.1	131.8	144.9	95.2
Petroleum	98.8	103.0	100.3	97.6	97.8	103.3	100.4	95.2
Stone, clay, and glass products	102.3	94.8	97.8	98.9	110.1	102.8	105.8	107.9
Cement	92.8	84.8	88.2	90.4	98.2	88.0	94.8	101.8
Brick, tile, and terra cotta	106.3	91.3	99.7	104.0	112.3	97.1	104.2	112.3
Pottery	108.3	108.8	105.7	103.7	119.5	124.5	120.3	111.4
Glass	99.4	96.6	96.4	94.9	109.3	106.0	106.3	105.2
Metal products other than iron and steel	98.5	94.6	93.9	93.5	99.9	97.9	91.3	95.1
Stamped and enameled ware	96.3	89.6	88.2	86.1	90.5	91.2	86.7	85.9
Brass, bronze, and copper products	99.5	96.8	96.5	96.8	103.3	100.3	93.0	98.5
Tobacco products	84.0	83.5	81.6	82.4	83.3	82.1	79.0	84.6
Chewing and smoking tobacco and snuff	98.7	97.8	90.6	89.0	98.7	100.0	91.3	94.4
Cigars and cigarettes	82.7	81.6	80.4	81.6	81.5	80.0	77.6	83.5
Vehicles for land transportation	93.5	86.3	86.8	86.9	96.8	91.3	93.1	94.2
Automobiles	110.2	106.1	106.9	107.2	115.5	112.6	115.8	116.5
Carriages and wagons	90.5	74.5	73.3	74.1	93.5	79.7	80.8	80.4
Car building and repairing, electric railroad	90.0	89.5	89.5	88.4	92.2	92.5	91.9	92.6
Car building and repairing, steam railroad	83.1	73.9	74.2	74.3	85.2	77.9	78.9	80.4

EMPLOYMENT IN MANUFACTURING INDUSTRIES, MAY, 1927 129

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—MAY, 1926, AND MARCH, APRIL, AND MAY, 1927—Continued

[Monthly average, 1923=100]

Industry	Employment				Pay-roll totals			
	May, 1926	March, 1927	April, 1927	May, 1927	May, 1926	March, 1927	April, 1927	May, 1927
Miscellaneous industries	95.5	102.5	101.8	100.2	100.2	111.4	113.3	109.3
Agricultural implements	101.0	96.6	93.8	91.2	115.8	109.5	107.8	106.2
Electrical machinery, apparatus, and supplies	96.7	93.8	93.5	92.7	100.8	100.4	100.2	100.2
Pianos and organs	93.6	87.4	84.5	82.9	102.5	92.3	87.4	88.1
Rubber boots and shoes	88.9	87.6	86.4	87.0	97.6	97.5	97.5	100.6
Automobile tires	107.8	105.9	111.8	116.0	111.1	114.1	121.5	124.5
Ship building, steel	90.3	110.1	107.4	103.2	94.9	117.5	119.5	110.9

Table 7 shows the general index of employment in manufacturing industries and the general index of pay-roll totals from January, 1923, to May, 1927.

Following Table 7 is a chart made from index numbers, showing clearly the course of employment in the 54 industries combined, and the course of pay-roll totals as well, for each month of 1926, as compared with the corresponding month of 1927, as far as May.

TABLE 7.—GENERAL INDEX OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO MAY, 1927

[Monthly average, 1923=100]

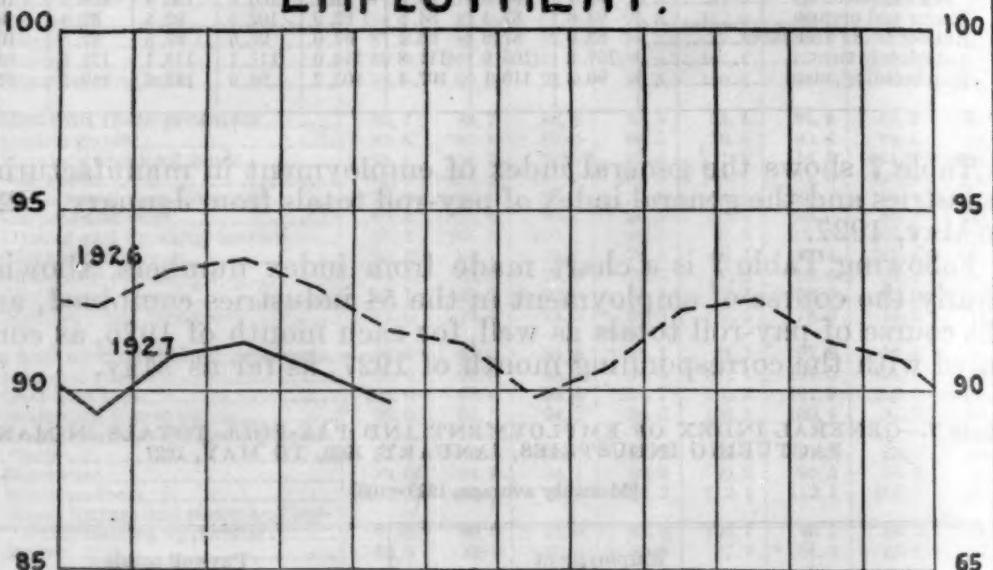
Month	Employment					Pay-roll totals				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January	98.0	95.4	90.0	92.3	89.4	91.8	94.5	90.0	93.9	90.9
February	99.6	96.6	91.6	93.3	91.0	95.2	99.4	95.1	97.9	96.4
March	101.8	96.4	92.3	93.7	91.4	100.3	99.0	96.6	99.1	97.7
April	101.8	94.5	92.1	92.8	90.6	101.3	96.9	94.2	97.2	96.6
May	101.8	90.8	90.9	91.7	89.7	104.8	92.4	94.4	95.6	95.6
June	101.9	87.9	90.1	91.3	-----	104.7	87.0	91.7	95.5	-----
July	100.4	84.8	89.3	89.8	-----	99.9	80.8	89.6	91.2	-----
August	99.7	85.0	89.9	90.7	-----	99.3	83.5	91.4	94.6	-----
September	99.8	86.7	90.9	92.2	-----	100.0	86.0	90.4	95.1	-----
October	99.3	87.9	92.3	92.5	-----	102.3	88.5	96.2	98.6	-----
November	98.7	87.8	92.5	91.4	-----	101.0	87.6	96.2	95.4	-----
December	96.9	89.4	92.6	90.9	-----	98.9	91.7	97.3	95.6	-----
Average	100.0	90.3	91.2	91.9	190.4	100.9	90.6	93.6	95.8	195.4

¹ Average for 5 months.

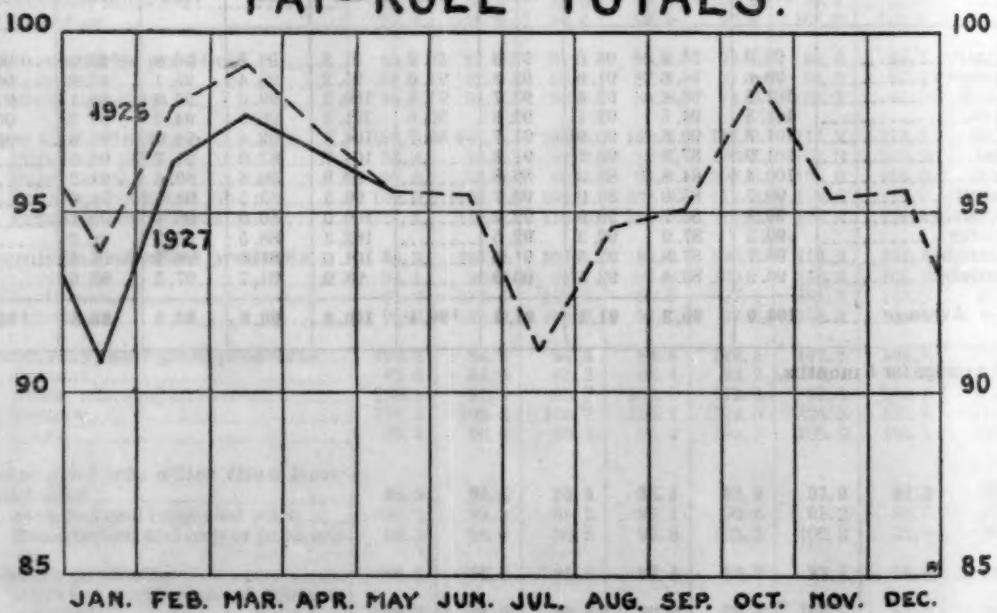
MANUFACTURING INDUSTRIES. MONTHLY INDEXES - 1926 & 1927.

MONTHLY AVERAGE 1923 = 100.

EMPLOYMENT.



PAY-ROLL TOTALS.



EMPLOYMENT IN MANUFACTURING INDUSTRIES, MAY, 1927 131

Proportion of Time Worked and Force Employed in Manufacturing Industries in May, 1927

REPORTS from 8,420 establishments in May, 1927, show 1 per cent idle, 80 per cent operating on a full-time schedule, and 19 per cent on a part-time schedule; 36 per cent of the establishments had a full normal force of employees, and 63 per cent were operating with a force below normal. The establishments in operation were employing an average of 87 per cent of a full normal force of employees who were working an average of 97 per cent of full time. These percentages show no change in average operating time and a decrease of 1 per cent in average per cent of normal force employed since the April report.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN MAY, 1927

Industry	Establishments reporting		Per cent of establishments operating		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	1,363	1	83	16	96	38	61	87
Slaughtering and meat packing	144	—	84	16	98	26	74	89
Confectionery	213	(1)	63	37	92	5	94	65
Ice cream	157	—	99	1	100	14	86	79
Flour	272	2	69	29	90	41	57	89
Baking	574	(1)	92	8	99	59	40	96
Sugar refining, cane	8	—	88	13	96	—	100	84
Textiles and their products	1,352	2	84	14	98	51	47	99
Cotton goods	431	1	93	6	100	70	29	96
Hosiery and knit goods	156	—	84	16	98	55	45	88
Silk goods	150	—	86	14	98	45	55	95
Woolen and worsted goods	173	4	68	28	96	34	62	86
Carpets and rugs	22	—	73	27	95	41	59	83
Dyeing and finishing textiles	73	—	74	26	95	37	63	83
Clothing, men's	152	5	81	14	97	39	55	86
Shirts and collars	49	—	88	12	98	39	61	90
Clothing, women's	104	2	88	10	98	55	43	89
Millinery and lace goods	42	2	76	21	95	12	86	72
Iron and steel and their products	1,481	(1)	72	28	95	26	73	84
Iron and steel	171	2	75	23	95	25	74	85
Cast-iron pipe	42	—	45	55	84	24	76	85
Structural ironwork	116	—	86	14	98	24	76	80
Foundry and machine-shop products	815	—	71	29	95	25	75	83
Hardware	47	—	53	47	94	28	86	86
Machine tools	134	—	81	19	97	22	78	84
Steam fittings and steam and hot-water heating apparatus	82	—	73	27	96	41	59	93
Stoves	74	4	53	43	89	41	55	91
Lumber and its products	911	3	75	23	96	28	70	84
Lumber, sawmills	398	3	83	14	98	28	68	85
Lumber, millwork	189	2	70	29	95	21	78	81
Furniture	324	(1)	70	30	94	33	67	85
Leather and its products	294	2	80	18	95	28	70	86
Leather	100	1	93	7	98	30	69	86
Boots and shoes	194	2	74	24	94	27	71	86
Paper and printing	634	(1)	87	13	98	50	50	94
Paper and pulp	136	1	81	18	96	49	49	93
Paper boxes	126	1	70	29	96	20	79	86
Printing, book and job	218	—	93	7	90	43	57	94
Printing, newspapers	154	—	99	1	100	84	16	100
Chemicals and allied products	263	1	81	19	97	24	76	75
Chemicals	100	1	92	7	99	35	64	89
Fertilizers	116	1	63	36	93	13	86	59
Petroleum refining	46	—	100	—	100	26	74	85

¹ Less than one-half of 1 per cent.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN MAY, 1927—Continued

Industry	Establishments reporting		Per cent of establishments operating		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Stone, clay, and glass products								
Cement	74	2	99	1	100	28	72	81
Brick, tile, and terra cotta	302	2	86	12	98	33	64	91
Pottery	50	2	62	38	89	40	60	88
Glass	97	2	94	4	99	41	57	90
Metal products, other than iron and steel								
Stamped and enameled ware	48	—	81	19	96	25	75	86
Brass, bronze, and copper products	123	—	79	21	98	23	77	84
Tobacco products								
Chewing and smoking tobacco and snuff	18	—	78	22	92	22	78	89
Cigars and cigarettes	104	5	44	51	91	21	74	86
Vehicles for land transportation								
Automobiles	1,004	(1)	87	13	98	42	58	94
Carriages and wagons	156	1	78	22	97	35	65	86
Car building and repairing, electric-railroad	56	2	89	9	98	32	66	79
Car building and repairing, steam-railroad	350	(1)	94	5	99	62	37	96
442	—	—	84	16	98	30	70	87
Miscellaneous industries								
Agricultural implements	298	(1)	73	26	96	23	76	85
Electrical machinery, apparatus, and supplies	63	—	67	33	95	23	77	80
Pianos and organs	130	1	77	22	97	19	80	83
Rubber boots and shoes	25	—	64	36	91	20	80	83
Automobile tires	8	—	63	38	96	38	63	97
Shipbuilding, steel	41	—	63	37	94	34	66	88
All industries	8,420	1	80	19	97	36	63	87

¹ Less than one-half of 1 per cent.

Trend of Employment and Pay-Roll Totals in Cotton-Goods Mills, by Districts, 1923 to 1927

THE trend of employment and of pay-roll totals in the three principal cotton manufacturing districts of the United States—New England, Middle Atlantic, and Southern—is shown in the following table and accompanying chart.

The information collected is presented in the form of index numbers which show relatively the movement of employment and pay-roll totals, from month to month, from January, 1923, to May, 1927. In computing these index numbers the monthly average for 1923 is used as the base or 100. The data for 29 months are linked together by means of a chain index, the per cents of change from month to month being obtained by comparing reports from identical establishments for each two consecutive months. The number of establishments reporting has varied from month to month, and the average number in 1927 is considerably greater than in 1923, but even in the earlier year so large a number of employees was represented in each district as to render the information representative of the industry as a whole in the respective districts.

DUE JUN 1927

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INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN COTTON-GOODS MILLS,
BY DISTRICTS

New England States: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island,
and Vermont

[Monthly average, 1923=100]

Month	Employment					Pay-roll totals				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January	104.5	94.8	87.0	81.3	79.1	100.7	95.8	82.3	74.9	74.2
February	104.3	94.1	88.1	82.8	80.9	100.4	94.0	83.2	76.7	77.3
March	106.7	91.1	88.7	84.1	81.1	103.1	87.2	83.1	78.9	78.6
April	105.8	85.9	89.2	84.0	80.3	104.4	81.5	82.7	77.4	76.6
May	106.1	82.2	87.5	80.3	79.9	116.2	76.2	80.5	70.8	77.0
June	104.6	80.8	85.2	77.4	-----	111.3	68.9	75.1	68.8	-----
July	90.2	70.1	74.6	66.5	-----	92.9	59.9	66.7	55.8	-----
August	98.6	71.6	77.5	68.4	-----	96.6	63.0	69.4	60.1	-----
September	97.3	72.0	70.8	74.0	-----	99.1	66.1	58.4	66.1	-----
October	91.1	76.6	80.4	77.7	-----	88.0	70.6	71.8	69.9	-----
November	92.7	74.9	82.1	77.5	-----	87.5	68.0	72.8	69.7	-----
December	98.3	85.0	80.5	79.2	-----	99.6	81.9	75.2	74.1	-----
Average	100.0	81.6	82.6	77.8	180.3	100.0	76.1	75.1	70.3	176.7

Middle Atlantic States: New Jersey, New York, and Pennsylvania

	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January	115.9	94.1	73.3	68.6	67.0	114.8	91.3	71.5	72.2	66.0
February	118.4	89.7	72.9	70.0	68.0	116.1	79.0	69.2	69.3	71.6
March	118.2	66.8	74.1	69.2	67.7	118.0	72.9	76.1	73.1	74.2
April	115.0	70.9	73.0	69.6	68.2	117.2	69.6	75.6	73.5	71.2
May	110.8	69.7	73.4	68.9	66.5	114.9	67.0	73.5	68.0	67.4
June	103.5	67.2	71.1	66.8	-----	104.6	64.6	63.1	65.1	-----
July	76.5	63.1	62.5	62.6	-----	76.8	52.0	60.1	58.0	-----
August	69.1	63.9	38.6	43.4	-----	68.5	53.3	40.9	46.8	-----
September	91.8	68.2	64.6	64.8	-----	90.0	66.6	60.1	65.8	-----
October	92.3	69.3	65.4	66.7	-----	93.3	66.8	66.7	68.6	-----
November	95.5	70.7	65.5	66.5	-----	91.6	60.5	63.7	71.7	-----
December	92.9	71.6	67.3	66.7	-----	94.2	72.9	71.9	71.5	-----
Average	100.0	72.1	66.8	65.3	167.5	100.0	68.0	66.0	67.0	170.1

Southern States: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas

	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January	99.4	99.6	96.0	98.9	101.5	93.8	101.3	92.9	99.3	102.2
February	100.7	99.8	97.1	97.9	102.3	95.5	99.9	94.4	99.8	104.4
March	101.2	97.3	95.4	98.7	103.3	96.4	91.5	94.8	98.4	105.6
April	99.7	94.2	95.2	96.8	103.6	103.3	87.2	93.4	96.7	106.1
May	99.4	91.1	93.5	95.5	103.4	103.3	80.8	91.5	90.7	105.6
June	98.8	88.0	92.4	93.8	-----	102.2	75.7	87.0	87.9	-----
July	98.6	82.1	88.6	92.5	-----	100.8	68.6	82.9	85.6	-----
August	98.2	84.2	89.4	93.6	-----	99.1	74.0	83.1	88.8	-----
September	100.1	87.1	90.1	95.4	-----	101.0	76.5	80.3	93.2	-----
October	100.4	90.9	94.2	96.8	-----	99.6	85.6	89.7	96.6	-----
November	102.3	92.6	96.8	98.7	-----	101.7	87.5	95.3	99.2	-----
December	101.0	94.7	99.4	100.2	-----	103.8	93.1	99.6	102.6	-----
Average	100.0	91.8	94.0	96.6	102.8	100.0	85.1	90.4	94.9	104.8

¹ Average for 5 months.

In May, 1927, the representation from each district was as follows: New England, 123 establishments, 92,940 employees, and \$1,907,128 pay-roll total; Middle Atlantic, 27 establishments, 13,435 employees, and \$285,074 pay-roll total; Southern, 329 establishments, 130,319 employees, and \$1,723,411 pay-roll total.

The range of employment has been greatest in the Middle Atlantic States, the index having stood at 118.4 in February, 1923, and at 38.6 in August, 1925; the New England States' index ranged from

106.7 in March, 1923, to 66.5 in July, 1926; and the Southern States' index ranged from 103.6 in April, 1927, to 82.1 in July, 1924.

The average monthly indexes of employment for the New England and the Middle Atlantic districts were considerably lower in 1926 than in any year since 1923, while the average monthly index in the Southern district was higher in 1926 than either that for 1924 or 1925 and only 3.4 per cent lower than in 1923.

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the average monthly index for each district for the first five months of each year, 1923 to 1927, inclusive:

District	Average index of employment for first 5 months of—				
	1923	1924	1925	1926	1927
New England.....	105.5	89.6	88.1	82.5	90.3
Middle Atlantic.....	115.7	78.2	73.3	69.3	67.5
Southern.....	100.1	96.4	95.4	97.6	102.8

Employment and Pay-roll Totals on Class I Railroads, April, 1926, and March and April, 1927

THE number of employees on the 15th of April, 1927, and the total earnings of employees in the entire month of April, 1927, on Class I railroads of the United States are shown in the table following, together with similar information for March, 1927, and 1926. The data are presented for all occupations combined,

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Crossing and vintage employees and earnings	22,371	21,964	21,027	1,068,745	1,064,297	1,082,510
Transportation (yardmasters, switch tenders, and hostlers)	24,045	23,912	23,456	4,419,778	4,372,894	4,399,887
Transportation, train and engine	325,160	326,348	319,483	61,872,351	66,639,719	62,663,762
Road conductors	36,474	36,656	36,142	8,284,685	8,963,312	8,546,513
Road brakemen and flagmen	73,944	74,230	72,721	12,215,976	13,148,270	12,474,748
Road engineers and motormen	54,407	55,002	53,239	8,915,222	9,830,689	9,119,362
Road firemen and helpers	43,495	43,710	43,041	11,117,373	11,667,111	11,021,326
All occupations	1,766,615	1,713,696	1,741,569	235,478,375	242,008,804	238,000,327

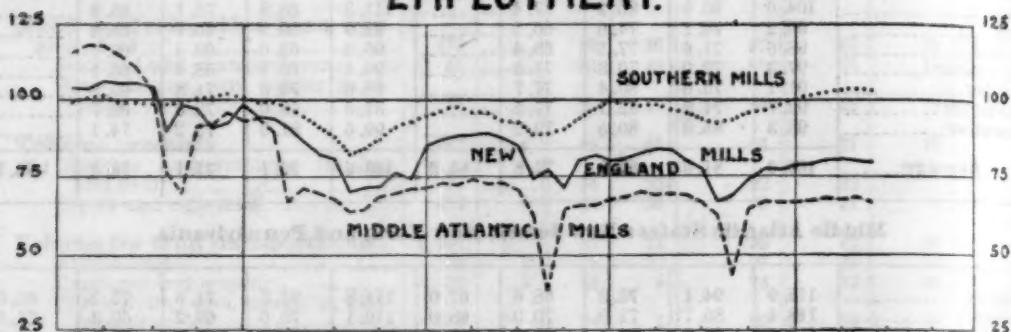
106.7 in March, 1923, to 66.5 in July, 1926; and the Southern States' index ranged from 103.6 in April, 1927, to 82.1 in July, 1924.

The average monthly indexes of employment for the New England and the Middle Atlantic districts were considerably lower in 1926 than in any year since 1923, while the average monthly index in the Southern district was higher in 1926 than either that for 1924 or 1925 and only 3.4 per cent lower than in 1923.

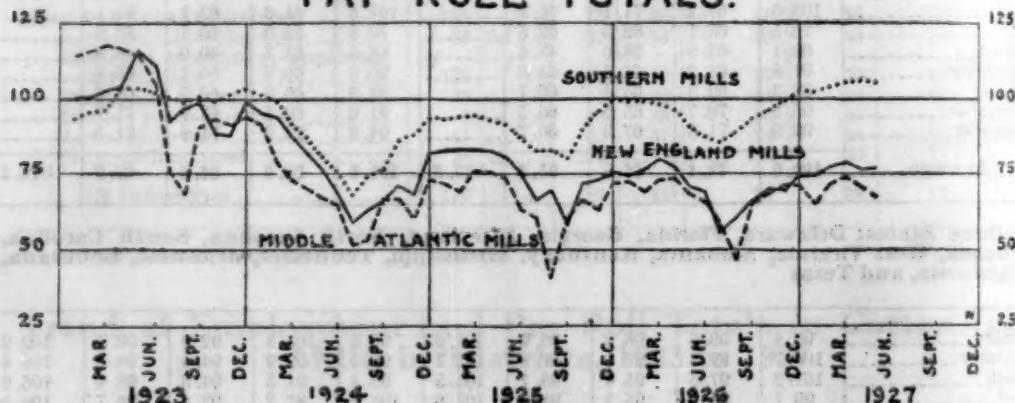
TREND OF EMPLOYMENT & PAY-ROLL TOTALS IN COTTON-GOODS MILLS.

MONTHLY AVERAGE 1923 = 100.

EMPLOYMENT.



PAY-ROLL TOTALS.



Comparative employment conditions in the three districts are further exemplified by the following tabular statement, which shows the average monthly index for each district for the first five months of each year, 1923 to 1927, inclusive:

District	Average index of employment for first 5 months of—				
	1923	1924	1925	1926	1927
New England-----	106.5	89.6	88.1	82.5	80.3
Middle Atlantic-----	115.7	78.2	73.3	69.3	67.5
Southern-----	100.1	96.4	95.4	97.6	102.8

Employment and Pay-roll Totals on Class I Railroads, April, 1926, and March and April, 1927

THE number of employees on the 15th of April, 1927, and the total earnings of employees in the entire month of April, 1927, on Class I railroads of the United States are shown in the table following, together with similar information for March, 1927, and April, 1926. The data are presented for all occupations combined, excluding executives and officials, and also for the six general groups of occupation; under each group data are shown separately for a few of the more important occupations.

Class I railroads are roads having operating revenues of \$1,000,000 a year and over.

EMPLOYMENT AND TOTAL EARNINGS OF RAILROAD EMPLOYEES—APRIL, 1926, AND MARCH AND APRIL, 1927

From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	April, 1926	March, 1927	April, 1927	April, 1926	March, 1927	April, 1927
Professional, clerical, and general	283,631	283,207	282,196	\$36,700,653	\$39,852,194	\$39,924,204
Clerks	166,606	165,195	164,204	21,557,495	22,080,666	21,579,745
Stenographers and typists	25,359	25,475	25,437	3,122,423	3,216,741	3,175,206
Maintenance of way and structures	403,858	371,694	416,762	37,351,237	35,611,853	38,397,041
Laborers, extra gang and work train	62,383	51,582	66,760	4,819,207	3,986,562	5,253,758
Laborers, track and roadway section	208,451	189,456	215,914	15,317,478	14,164,721	16,261,270
Maintenance of equipment and stores	522,813	502,287	494,127	67,996,896	69,435,998	65,903,651
Carmen	113,178	107,454	105,688	16,615,582	16,925,578	15,786,687
Machinists	61,523	59,913	59,158	9,731,957	10,087,522	9,390,589
Skilled trades helpers	114,876	110,275	108,344	12,627,811	13,637,392	12,132,497
Laborers (shops, engine houses, power plants, and stores)	43,342	42,537	41,658	4,026,247	4,147,132	3,921,503
Common laborers (shops, engine houses, power plants, and stores)	60,804	57,819	56,376	4,955,718	4,966,076	4,589,919
Transportation, other than train, engine, and yard	207,308	206,308	205,465	25,047,242	25,893,616	25,106,703
Station agents	30,697	30,475	30,437	4,712,569	4,835,432	4,712,432
Telegraphers, telephoners, and trolleymen	25,799	25,097	24,938	3,806,026	3,893,996	3,753,778
Truckers (stations, warehouses, and platforms)	30,105	38,667	38,341	3,605,142	3,766,796	3,522,971
Crossing and bridge flagmen and gatemen	22,371	21,964	21,927	1,668,745	1,694,297	1,682,510
Transportation (yardmasters, switch tenders, and hostlers)	24,045	23,912	23,456	4,419,778	4,572,894	4,399,887
Transportation, train and engine	325,160	326,348	319,483	61,372,351	66,639,719	62,663,762
Road conductors	36,474	36,656	36,142	8,284,685	8,963,312	8,546,513
Road brakemen and flagmen	73,944	74,230	72,721	12,215,976	13,148,270	12,474,748
Yard brakemen and yard helpers	54,407	55,002	53,239	8,915,222	9,830,689	9,119,362
Road engineers and motormen	43,495	43,710	43,941	11,117,373	11,667,111	11,021,326
Road firemen and helpers	45,214	44,769	44,063	8,257,821	8,909,546	8,405,637
All occupations	1,766,615	1,713,696	1,741,509	235,478,375	242,008,204	238,000,327

State Reports on Employment

California

THE May, 1927, Labor Market Bulletin, issued by the Bureau of Labor Statistics of California, shows the following changes in volume of employment and pay roll from April, 1926, to April, 1927, in 787 establishments in that State:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 787 CALIFORNIA ESTABLISHMENTS, APRIL, 1927, COMPARED WITH APRIL, 1926

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in April, 1927	Per cent of change as compared with April, 1926	Amount in April, 1927	Per cent of change as compared with April, 1926
Stone, clay, and glass products:					
Miscellaneous stone and mineral products.....	12	1,335	+14.2	\$40,971	+21.7
Lime, cement, plaster.....	8	2,115	-5	64,844	+4.8
Brick, tile, pottery.....	18	2,878	+22.6	72,870	+22.0
Glass.....	9	807	+1.1	26,488	+4.1
Total.....	47	7,135	+10.8	205,173	+13.5
Metals, machinery, and conveyances:					
Agricultural implements.....	7	1,717	-3.1	48,824	-2.4
Automobiles, including bodies and parts.....	15	2,360	-17.5	94,759	-21.4
Brass, bronze, and copper products.....	9	1,021	-8.6	28,541	-6.6
Engines, pumps, boilers, and tanks.....	8	849	-9.1	27,928	-14.2
Iron and steel forgings, bolts, nuts, etc.....	8	2,742	-8.0	90,224	-4.8
Structural and ornamental steel.....	21	4,939	+3.2	157,962	+10.6
Ship and boat building and naval repairs.....	6	6,000	+28.8	210,833	+36.2
Tin cans.....	7	2,349	+4.0	65,159	+7.0
Other iron foundry and machine shop products.....	71	7,445	+5.5	244,144	+4.0
Other sheet metal products.....	22	1,693	+2.0	51,812	+5.8
Cars, locomotives, and railway repair shops.....	18	7,881	+7.8	247,733	+10.4
Total.....	102	39,706	+3.9	1,267,019	+7.1
Wood manufactures:					
Sawmills and logging.....	23	9,926	-14.2	249,257	-22.2
Planing mills, sash and door factories, etc.....	61	10,037	-12.4	269,516	-13.2
Other wood manufactures.....	43	4,710	+4.4	136,026	+4.2
Total.....	127	24,673	-11.0	654,799	-14.0
Leather and rubber goods:					
Tanning.....	8	852	+1.2	24,296	+2.1
Finished leather products.....	5	462	-10.1	10,611	+4.3
Rubber products.....	7	2,732	+3.3	83,276	+13.4
Total.....	20	4,046	+1.1	118,483	+10.0
Chemicals, oils, paints, etc.:					
Explosives.....	4	467	-4.9	13,543	-8.0
Mineral oil refining.....	7	12,465	+7.0	468,966	+7.7
Paints, dyes, and colors.....	8	657	-3.4	17,102	-9.0
Miscellaneous chemical products.....	13	2,006	+7.4	54,550	+6.2
Total.....	32	15,595	+6.2	554,170	+6.5
Printing and paper goods:					
Paper boxes, bags, cartons, etc.....	12	1,762	-4.0	46,308	-1.8
Printing.....	60	2,466	+2.8	91,230	+5.9
Publishing.....	16	3,427	+1.1	125,631	+1.9
Other paper products.....	8	1,032	+10.8	25,083	+12.8
Total.....	96	8,687	+1.2	288,252	+3.4

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 787 CALIFORNIA ESTABLISHMENTS, APRIL, 1927, COMPARED WITH APRIL, 1926—Continued.

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in April, 1927	Per cent of change as compared with April, 1926	Amount in April, 1927	Per cent of change as compared with April, 1926
Textiles:					
Knit goods	12	965	-6.4	\$22,165	+0.9
Other textile products	6	1,586	+.8	35,794	+2.6
Total	18	2,551	-2.0	57,959	+1.6
Clothing, millinery, and laundering:					
Men's clothing	24	2,995	+5.4	66,643	+5.4
Women's clothing	9	808	+14.1	17,115	+12.8
Millinery	6	734	-1.5	12,900	-11.6
Laundering, cleaning, and dyeing	23	3,706	+6.8	85,328	+6.1
Total	62	8,243	+6.2	181,986	+4.9
Foods, beverages, and tobacco:					
Canning, preserving of fruits and vegetables	34	15,843	+44.0	313,874	+42.9
Canning, packing of fish	5	140	+89.2	1,895	+10.8
Confectionery and ice cream	28	1,802	-.6	44,320	-2.4
Groceries not elsewhere specified	6	544	-.9	13,441	+3.0
Bread and bakery products	22	3,706	+.9	108,007	+5.3
Sugar	6	2,858	-4.4	84,762	+2.4
Slaughtering and meat products	15	2,760	+4.7	82,620	+7.6
Cigars and other tobacco products	5	1,020	+4.1	17,915	-1.2
Beverages	4	484	-5.8	11,204	-15.7
Dairy products	10	1,704	+14.4	53,489	+19.6
Flour and grist mills	14	1,075	+.7	30,158	+3.2
Ice manufactures	15	1,078	-11.1	36,299	-5.3
Other food products	12	761	-3.9	17,395	-4.3
Total	176	33,775	+17.3	815,379	+15.8
Water, light, and power	5	7,528	-15.8	226,603	-14.1
Miscellaneous	12	2,007	-6.7	53,864	+5.3
Grand total, all industries	787	153,946	+2.7	4,423,687	+3.3

Illinois

THE April, 1927, issue of the Labor Bulletin, published by the Illinois Department of Labor, contains the following statistics showing the changes in employment and earnings in Illinois factories in March, 1927, as compared with February, 1927:

CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM FEBRUARY TO MARCH, 1927

Industry	Per cent of change from February to March, 1927			Total earnings	
	Employment		Total employees		
	Males	Females			
Stone, clay and glass products:					
Miscellaneous stone and mineral products.....	+3.3	+10.7	+3.5	+10.1	
Lime, cement and plaster.....	+3.2	+50.0	+3.7	-7	
Brick tile and pottery.....	+8.2	+2.7	+8.1	+7.0	
Glass.....	+1.6	+19.3	+3.3	+1.9	
Total.....	+4.7	+16.8	+5.2	+5.4	
Metals, machinery, conveyances:					
Iron and steel.....	+1.5	+6.7	+1.5	-2.6	
Sheet metal work and hardware.....	+1.7	+7.2	+2.0	+7	
Tools and cutlery.....	+.7	-22.8	-2.2	-8	
Cooking, heating, ventilating apparatus.....	+1.3	+.6	+1.2	+4.4	
Brass, copper, zinc, Babbitt metal.....	+.0	-2.4	0.0	-3.3	
Cars and locomotives.....	-5.1	-12.5	-5.2	+7.9	
Automobiles and accessories.....	+4.7	+13.5	+6.4	-7.0	
Machinery.....	0.0	+.2	-.5	-1.3	
Electrical apparatus.....	-1.5	-1.2	-2.4	+1	
Agricultural implements.....	+.1	-8.2	0.0	-2.1	
Instruments and appliances.....	+2.5	+5.3	+3.8	+1.7	
Watches, watch cases, clocks and jewelry.....	-.6	-1.1	-.8	-5.5	
Total.....	+.5	+2.2	-.1	-.9	
Wood products:					
Sawmill and planing mill products.....	+1.6	+2.1	+1.6	+4.4	
Furniture and cabinet work.....	-1.3	-9.8	-2.5	+3.9	
Pianos, organs, and other musical instruments.....	-5.0	-4.2	-4.2	-7	
Miscellaneous wood products.....	+4.0	+3.1	+3.9	+3.8	
Household furnishings.....	+19.8	+11.0	+16.8	+14.1	
Total.....	+.3	-2.3	+.1	-.1	
Furs and leather goods:					
Leather.....	-3.6	+2.0	-2.8	-1.1	
Furs and fur goods.....	+12.5	+28.6	+18.9	+14.6	
Boots and shoes.....	-8.1	-11.8	-4.4	-10.2	
Miscellaneous leather goods.....	-3.0	+.5	-.9	+.1	
Total.....	-5.9	-8.2	-3.8	-7.6	
Chemicals, oils, paints, etc.:					
Drugs and chemicals.....	-.6	-1.7	-1.1	+.2	
Paints, dyes and colors.....	+11.2	+.5	+7.0	+5.7	
Mineral and vegetable oil.....	-1.9	-3.6	-2.0	-4.0	
Miscellaneous chemical products.....	-1.1	+5.7	-.3	+.8	
Total.....	+.2	0.0	+.4	-.2	
Printing and paper goods:					
Paper boxes, bags and tubes.....	-1.7	+1.0	-1.1	-3.2	
Miscellaneous paper goods.....	-.7	-.4	-.6	-3.2	
Job printing.....	-3.3	+2.7	-1.8	-3.2	
Newspapers and periodicals.....	-1.5	-1.4	+2.1	+1.7	
Edition bookbinding.....	+4.9	+1.1	+3.9	+3.4	
Total.....	-2.0	+1.5	-.5	-1.7	

CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM FEBRUARY TO MARCH, 1927—Continued

Industry	Per cent of change from February to March, 1927			
	Employment			Total earnings
	Males	Females	Total employees	
Textiles:				
Cotton and woolen goods	+2.4	+2.9	+2.6	+8.0
Knit goods, cotton and woolen hosiery	2.5	+8.8	+1.2	+4.8
Thread and twine	+3.7	-3.7	.6	-2.0
Total	+1.3	+2.5	+1.3	+4.0
Clothing, millinery, laundering:				
Men's clothing	-3.1	-1.2	-1.7	-4.0
Men's shirts and furnishings	+6.7	-3.0	-4.0	-7.9
Overalls and work clothing	-6.3	-6.6	-6.7	-4.1
Men's hats and caps	+2.1	+3.7	+2.7	-16.4
Women's clothing	-.6	+.3	.1	-4.1
Women's underwear	+2.3	+.8	+11.2	+6.7
Women's hats	+5.1	-5.4	-3.0	-12.7
Laundering, cleaning and dyeing	.7	+2.1	+1.7	-.4
Total	-2.1	-.9	-.6	-3.8
Food, beverages and tobacco:				
Flour, feed and other cereal products	+1.7	0.0	+1.6	+4.0
Fruit and vegetable canning and preserving	+15.7	+43.8	+20.1	+4.1
Miscellaneous groceries	+.4	-6.9	+2.6	+4.8
Slaughtering and meat packing	-4.6	-2.0	-4.3	-3.5
Dairy products	+.4	+4.9	.6	+.4
Bread and other bakery products	-.1	+1.9	.5	-1.0
Confectionery	-15.1	-4.9	-5.8	+5.4
Beverages	+13.8	+2.8	+4.3	+5.6
Cigars and other tobacco products	+.6	-1.1	-.3	-.4
Manufactured ice	+9.0		+9.0	+10.8
Ice cream	+6.2	+10.5	+6.6	+13.2
Total	-2.7	-1.4	-1.8	-.1
All manufacturing industries	-.2	-.2	-.3	-.9
Trade, wholesale and retail:				
Department stores	+1.1	+1.2	+1.2	+.6
Wholesale dry goods	0.0	-1.2	-.6	+.2
Wholesale groceries	-8.7	+1.2	-6.2	+4.8
Mail order houses	-2.4	-5.7	-1.9	-1.4
Total	-2.3	-3.7	-1.6	-.8
Public utilities:				
Water, light and power	-1.7	+5.5	.1	-3.5
Telephone	+.8	+.3	.5	-2.8
Street railways	+.8	+.3	.7	-1.6
Railway car repair shops	-2.4	+3.3	-2.3	-.8
Total	-.2	+.5	.1	-2.3
Coal mining	-1.1		-1.1	-1.9
Building and contracting:				
Building construction	+4.7		+4.7	+3.3
Road construction	+4.2		+4.2	+43.8
Miscellaneous contracting	+23.8		+23.8	-9.6
Total	+7.9		+7.9	+1.7
All industries	-.1	-.4	-.2	-1.2

Iowa

THE Iowa Employment Survey for May, 1927, contains the following statistics showing the per cent of change in the number of employees in specified industries in that State in May, 1927, as compared with the previous month:

CHANGES IN VOLUME OF EMPLOYMENT IN IOWA, APRIL TO MAY, 1927

Industry	Number of firms reporting	Number of employees on pay rolls May, 1927	Per cent of change as compared with April, 1927	Industry	Number of firms reporting	Number of employees on pay rolls May, 1927	Per cent of change as compared with April, 1927
Food and kindred products:				Leather products:			
Meat packing.....	8	7,328	+1.4	Shoes.....	2	244	-15.9
Cereals.....	2	1,011	-6.1	Saddlery and harness.....	5	165	-10.3
Flour.....	3	92	-4.2	Fur goods and tanning.....	5	116	+3.6
Bakery products.....	11	1,107	-5	Gloves and mittens.....	2	196	-7.6
Confectionery.....	4	164	-36.0	Total.....	14	721	-8.5
Poultry and produce, butter, etc.....	7	1,043	+11.2	Paper products, printing and publishing:			
Sugar, starch, syrup, glucose, etc.....	4	1,514	+1.9	Paper products.....	5	349	-6
Other food products, coffee, etc.....	10	325	-4.6	Printing and publishing.....	14	2,135	-8
Total.....	49	12,584	+4	Total.....	19	2,484	-8
Textiles:				Patent medicines, chemicals, and compounds:			
Clothing, men's.....	9	972	+6.9	Cement, plaster, gypsum.....	8	469	+6
Millinery.....	2	108	-21.7	Brick and tile.....	6	1,448	+16.6
Clothing, women's, and woolen goods.....	3	536	-1.7	Marble and granite, crushed rock and stone.....	14	1,214	+6.3
Hosiery, awnings, etc.....	5	705	+4.0	Total.....	4	106	-7.0
Pearl buttons.....	8	699	-6.4	Stone and clay products:			
Total.....	27	3,020	+1	Cement, plaster, gypsum.....	24	2,768	+10.8
Iron and steel works:				Brick and tile.....	4	294	-1.4
Foundry and machine shops.....	27	3,108	+5	Marble and granite, crushed rock and stone.....	8	9,550	-6.9
Brass, bronze products, plumbers' supplies.....	4	310	-1.3	Total.....			
Automobiles, tractors, and engines.....	6	2,286	+5	Tobacco and cigars:			
Furnaces.....	8	529	-2.2	Railway car shops.....			
Pumps.....	5	438	+1.8	Total.....			
Agricultural implements.....	9	1,017	+8	Various industries:			
Washing machines.....	6	2,101	-4.1	Auto tires and tubes.....	2	142	+2.9
Total.....	65	9,789	-1	Brooms and brushes.....	5	161	-4.7
Lumber products:				Laundries.....	3	170	+2.4
Millwork, interiors, etc.....	18	3,271	+2	Mercantile.....	9	3,252	+1.2
Furniture, desks, etc.....	8	1,018	-7.7	Public service.....	5	4,019	+1.0
Refrigerators.....	3	171	+5.6	Seeds.....	2	472	-24.1
Coffins, undertakers' supplies.....	5	171	0.0	Wholesale houses.....	25	1,325	+1.0
Carriages, wagons, truck bodies.....	3	78	-9.3	Commission houses.....	8	217	+5.3
Total.....	37	4,709	-1.6	Other industries.....	7	1,392	+9

Maryland

THE commissioner of labor and statistics of Maryland furnished the following report on volume of employment in Maryland from April to May, 1927, covering 38,422 employees and a pay roll totaling \$968,976.

CHANGES IN EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MARYLAND IN MAY, 1927

Industry	Establishments reporting both months	Employment		Pay roll	
		Number of employees in May, 1927	Change as compared with April, 1927	Amount, May, 1927	Change as compared with April, 1927
Bakery	3	360	-----	\$9,195	-0.8
Boots and shoes	7	1,231	-2.0	21,312	+1
Boxes, paper and fancy	9	510	-1.0	7,384	-4.0
Boxes, wooden	3	148	+4.9	2,450	+1.2
Brass and bronze	3	2,340	+2.8	57,026	-3.6
Brick, tile, etc	5	322	+1.1	21,384	+8
Brushes	4	513	-3.4	9,303	-6
Car building and repairing	3	341	+2.4	11,372	-3.2
Chemicals	6	1,117	-8.0	31,203	+2.3
Clothing, men's outer garments	4	1,816	-10.5	26,393	-23.6
Clothing, women's outer garments	5	847	-5	11,455	-4.4
Confectionery	6	651	-16.4	9,656	-8.4
Cotton goods	5	2,114	-4.6	34,020	-3.9
Fertilizer	4	753	-12.7	15,816	-21.8
Food preparation	3	97	+10.2	2,383	+2.7
Foundry	9	1,016	-2.4	26,141	+2.3
Furnishing goods, men's	5	1,020	+3.9	13,987	+1.6
Furniture	11	925	-8.0	23,125	-8.2
Glass manufacture	3	751	+4.7	16,219	-4.5
Ice cream	4	277	+4.5	8,817	+2.3
Leather goods	5	645	+10.0	12,615	+4.1
Lithographing	3	503	-8	15,287	-1.2
Lumber and planing	6	554	+3.9	14,036	+6.1
Mattresses and spring beds	4	145	+4.3	3,217	-8.8
Plumbers' supplies	4	1,397	-4.5	39,486	-2.4
Printing	10	1,350	-2.2	48,174	+.01
Rubber tire manufacture	1	3,425	+4.6	199,854	-4.7
Shipbuilding	3	548	-17.0	15,375	-33.7
Silk goods	3	560	-3.2	8,405	-10.2
Stamping and enameling ware	4	1,159	-3.1	20,397	+10.4
Tinware	4	2,498	-6.0	54,209	-3.3
Tobacco	7	854	-2.0	12,910	-4.5
Umbrellas	3	314	-1.6	4,809	-6.7
Miscellaneous	18	4,915	-2.1	117,582	-2

Massachusetts

THE following changes in volume of employment in various industries in Massachusetts from March to April, 1927, are taken from a press release issued by the department of labor and industries of that State:

NUMBER OF EMPLOYEES IN 1,047 MANUFACTURING ESTABLISHMENTS IN MASSACHUSETTS, WEEK ENDING NEAREST TO MARCH 15 AND APRIL 15, 1927

Industry	Number of establis- ments reporting	Number of wage earners employed		
		April, 1927		
		March, 1927	Full time	Part time
Bookbinding	15	925	755	170
Boot and shoe cut stock and findings	43	2,345	1,392	842
Boots and shoes	87	26,362	20,100	4,435
Boxes, paper	27	2,077	1,569	416
Boxes, wooden packing	12	1,010	960	88
Bread and other bakery products	50	4,375	4,324	94
Carpets and rugs	5	3,645	3,196	460
Cars and general shop construction and repairs, steam railroads	4	2,943	2,066	871
Clothing, men's	28	4,303	3,511	762
Clothing, women's	34	1,636	1,187	406
Confectionery	18	3,615	1,827	1,624
Copper, tin, sheet iron, etc.	15	457	403	7
Cotton goods	55	42,166	38,860	2,173
Cutlery and tools	20	2,111	1,381	724
Dyeing and finishing textiles	10	6,849	6,308	519
Electrical machinery, apparatus, and supplies	16	10,067	8,583	938
Foundry products	27	2,779	1,816	869
Furniture	36	3,940	3,548	332
Gas and by-products	13	1,235	1,122	78
Hosiery and knit goods	12	5,117	3,487	1,579
Jewelry	33	2,282	1,011	1,263
Leather, tanned, curried, and finished	32	6,528	6,028	243
Machine shop products	46	6,162	5,682	462
Machine and other tools	27	2,766	2,363	424
Motor vehicles, bodies, and parts	16	4,347	4,367	5
Musical instruments	13	1,149	483	664
Paper and wood pulp	26	6,599	4,975	1,487
Printing and publishing, book and job	51	4,307	4,060	194
Printing and publishing, newspaper	18	2,417	2,339	8
Rubber footwear	3	8,792	7,025	1,603
Rubber goods	7	2,885	2,751	2,751
Silk goods	10	4,221	1,390	2,844
Slaughtering and meat packing	5	1,503	270	1,201
Stationery goods	12	1,654	1,469	204
Steam fittings and steam and hot-water heating apparatus	9	1,783	1,721	49
Stoves and stove linings	5	1,592	410	1,033
Textile machinery and parts	13	4,437	3,628	756
Tobacco	5	641	395	216
Woolen and worsted goods	59	10,808	12,239	7,041
All other industries	130	31,390	27,480	4,057
Total, all industries	1,047	243,175	196,540	41,110
				237,650

New Jersey

THE New Jersey Industrial Bulletin for May, 1927, contains the following statistics showing the changes in volume of employment and pay roll from March to April, 1927, in 867 establishments in that State:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF
WEEKLY PAY ROLL IN 867 NEW JERSEY ESTABLISHMENTS, APRIL, 1927, COMPARED
WITH MARCH, 1927

Industry	Number of plants reporting	Employees		Weekly pay roll	
		Number in April, 1927	Per cent of change as compared with March, 1927	Amount in April, 1927	Per cent of change as compared with March, 1927
Food and kindred products:					
Baking	16	1,381	-0.4	\$48,603	+6.0
Canning and preserving	8	4,202	+3.8	85,845	+3.7
Confectionery and ice cream	7	327	+2.5	7,432	+4.3
Provisions	3	1,285	-3.5	30,041	-8.8
Other food products	12	2,645	-2.3	75,070	+1.4
Total	46	9,840	+1.5	255,991	+2.8
Textiles and their products:					
Carpets and rugs	3	1,196	-9	33,224	-3.2
Clothing	30	4,235	-7.1	85,157	-7.3
Cotton goods	15	7,512	+1.4	152,254	-1.6
Dyeing and finishing textiles	38	12,111	-2.5	308,445	-15.5
Hats and caps	6	1,112	-5	25,386	-11.1
Hosiery and knit goods	17	3,907	+8	109,833	-4.7
Millinery and lace	10	1,022	+1.6	18,936	-9.3
Shirts and collars	9	2,105	-1.8	40,317	-3.1
Silk goods	58	9,566	-4	246,625	-1.1
Woolen and worsted goods	17	7,779	-9.7	194,184	-12.0
Miscellaneous textile products	10	2,048	-6	45,923	-7.0
Total	213	52,504	-2.6	1,260,284	-8.1
Iron and steel and their products:					
Cast-iron pipe	6	3,458	+1.6	104,072	+1.8
Electrical machinery, apparatus, and supplies	29	20,680	-3.4	579,625	-3.0
Foundry and machine-shop products	70	18,545	-9	557,495	-7
Hardware	7	960	+3	28,216	+4.6
Iron and steel forgings	8	810	+4.4	25,301	+6.9
Machine tools	22	3,577	-1.2	105,889	-2.8
Steam fittings and steam and hot-water heating apparatus	13	3,717	-4.9	116,412	-3.0
Structural-iron work	10	1,694	-4.4	48,396	-6.7
Total	174	53,441	-2.0	1,564,806	-1.7
Lumber and its products:					
Furniture	5	1,302	+4	38,719	+1.9
Lumber and millwork	14	705	-2.1	20,394	-1.2
Total	19	2,007	-5	59,113	+1.8
Leather and its products:					
Boots and shoes	7	1,183	-3.1	28,973	-3.4
Leather	22	3,481	-6.3	101,335	-8.3
Leather products	4	501	+12.1	12,588	+9.5
Total	33	5,165	-4.1	142,896	-6.0
Tobacco products					
Total	12	3,001	-10.4	48,929	-21.8
Paper and printing:					
Paper and pulp	24	4,322	+5	119,407	-1.5
Paper boxes	18	1,485	-4.4	32,452	+3.4
Printing, book and job	12	2,080	+3.9	68,247	+3.8
Printing, newspaper	10	1,991	-2	83,842	+3
Total	64	9,878	+3	303,948	+1.6
Chemicals and allied products:					
Chemicals	42	9,606	-2	275,868	+2.6
Explosives	6	2,157	-2.1	64,251	+10.5
Oils and greases	9	1,813	+10.1	51,187	+5.0
Paints and varnishes	13	1,671	-2.0	52,815	+7.2
Petroleum refining	8	15,331	-2.0	547,230	+8.5
Total	78	30,578	-8	901,351	+6.7

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF
WEEKLY PAY ROLL IN 867 NEW JERSEY ESTABLISHMENTS, APRIL, 1927, COMPARED
WITH MARCH, 1927—Continued

Industry	Number of plants reporting	Employees		Weekly pay roll	
		Number in April, 1927	Per cent of change as compared with March, 1927	Amount in April, 1927	Per cent of change as compared with March, 1927
Stone, clay, and glass products:					
Brick, tile, and terra cotta	26	4,272	+4.0	\$127,196	-14.1
Glass	7	3,349	-1.2	73,152	-4.2
Pottery	22	4,781	-5.8	141,580	-7.1
Other products	2	923	+3.8	36,862	+8.1
Total	57	13,325	-1.0	378,790	-7.8
Metal products, other than iron and steel:					
Brass, bronze, and copper products	11	627	+19.8	21,167	+17.2
Sheet metal and enamel ware	23	4,581	-3.5	122,143	-2.7
Smelting and refining	9	3,713	-6.2	119,259	-3.2
Wire and wire goods	15	7,924	-2.2	229,462	-3
Total	58	16,845	-2.8	492,031	-1.0
Vehicles for land transportation:					
Automobiles and parts	13	5,935	+13.7	190,933	+16.1
Car building and repairing, steam railroad	9	4,695	-10.7	128,562	-13.6
Total	22	10,630	+1.5	319,495	+2.0
Miscellaneous industries:					
Cork and cork specialties	5	1,742	-5.0	46,176	-8.7
Jewelry and novelties	29	3,975	-1.4	122,562	+3
Laundries	8	932	-2	18,938	+6
Musical instruments	4	8,314	-8	246,126	+1.1
Rubber tires and goods	30	9,970	-2	278,539	+1.4
Shipbuilding	6	6,918	-10.2	207,525	-10.8
Unclassified	9	3,702	-8	109,212	-1.4
Total	91	35,553	-2.9	1,029,078	-2.3
Grand total, all industries	867	242,857	-1.9	6,846,712	-2.1

New York

THE New York State Department of Labor has furnished the following index numbers of employment and pay rolls in New York State factories in April, 1927, as compared with April, 1926, and March, 1927, using the June, 1914, figures as a base.

INDEX NUMBERS OF EMPLOYMENT AND PAY ROLLS IN NEW YORK STATE FACTORIES, APRIL, 1926, AND MARCH AND APRIL, 1927

[June, 1914 = 100]

Industry	Employment			Pay roll		
	April, 1927	March, 1927	April, 1926	April, 1927	March, 1927	April, 1926
Stone, clay, and glass	108	99	100	252	238	253
Miscellaneous stone and minerals	152	152	162	353	350	377
Lime, cement, and plaster	121	117	125	300	277	300
Cement	91	84	94	217	198	220
Brick, tile, and pottery	97	76	95	197	169	195
Brick	81	46	76	150	103	147
Pottery	148	148	146	301	302	298
Glass	84	84	82	196	199	186
Metals and machinery	118	119	125	260	264	276
Silverware and jewelry	91	94	96	208	218	242
Brass, copper, and aluminum	137	136	138	313	316	313
Iron and steel	115	118	125	256	257	273
Structural and architectural iron	68	68	67	158	161	163
Sheet metal and hardware	99	101	104	230	237	236
Hardware	163	163	159	360	363	345
Stamped and enameled ware	79	79	87	200	211	212

INDEX NUMBERS OF EMPLOYMENT AND PAY ROLLS IN NEW YORK STATE FACTORIES, APRIL, 1926, AND MARCH AND APRIL, 1927—Continued

Industry	Employment			Pay roll		
	April, 1927	March, 1927	April, 1926	April, 1927	March, 1927	April, 1926
Stone, clay, and glass—Continued.						
Firearms, tools, and cutlery	110	113	103	216	223	204
Cutlery and tools	123	129	125	262	277	258
Cooking, heating, ventilating apparatus	155	152	171	362	358	392
Steam and hot water heating	188	181	203	457	444	485
Stoves	61	67	72	128	145	150
Machinery and electrical apparatus	118	120	129	258	263	283
Agricultural implements	57	59	53	120	125	112
Electrical machinery and apparatus	123	126	138	270	276	297
Foundries and machine shops	116	118	127	254	260	285
Automobiles, airplanes, etc.	155	151	169	319	311	352
Automobiles and parts	164	159	179	335	327	373
Railroad equipment and repair work	99	101	115	231	242	263
Locomotives and equipment	80	86	110	183	203	264
Railroad repair work	110	111	118	258	264	262
Boat and ship building	123	114	102	266	264	202
Instruments and appliances	128	129	123	263	269	251
Wood manufactures	94	95	99	227	234	241
Saw and planing mills	69	68	72	166	166	172
Millwork	90	87	97	218	214	231
Sawmills	64	66	60	139	143	130
Furniture and cabinet work	109	112	114	255	264	263
Furniture	112	115	117	260	272	268
Pianos and other musical instruments	100	105	110	256	277	304
Miscellaneous wood, etc.	99	97	102	240	242	242
Furs, leather, and rubber goods	103	105	105	234	242	229
Leather	113	119	121	245	255	280
Furs and fur goods	90	81	67	257	238	176
Shoes	126	129	127	262	271	256
Gloves, bags, canvas goods	67	67	67	169	177	163
Rubber and gutta percha	75	82	84	198	228	211
Pearl, horn, bone, etc.	68	71	81	178	181	202
Chemicals, oils, paints, etc.	109	109	104	243	245	227
Drugs and industrial chemicals	108	109	99	246	249	214
Paints and colors	95	94	100	196	192	203
Oil products	99	99	96	220	225	212
Petroleum refining	79	79	81	171	179	179
Photographic and miscellaneous chemicals	132	131	123	291	290	269
Pulp and paper	92	93	100	208	213	229
Printing and paper goods	95	96	95	227	230	225
Paper boxes and tubes	67	68	67	164	169	167
Miscellaneous paper goods	95	97	97	219	223	222
Printing and bookmaking	100	102	101	236	238	232
Printing, newspapers	100	98	100	205	201	199
Printing, book and job	100	103	101	243	248	243
Textiles	83	84	86	198	203	196
Silk and silk goods	64	65	74	145	149	151
Woolens, carpets, felts	99	100	96	262	268	239
Carpets and rugs	121	120	113	331	335	284
Woolens and worsteds	56	64	69	141	156	166
Cotton goods	100	101	100	213	225	223
Knit goods, except silk	72	71	79	154	155	167
Other textiles	87	88	86	208	213	203
Dyeing and finishing	86	88	88	196	205	207
Clothing and millinery	73	79	78	167	199	179
Men's clothing	85	94	90	163	225	193
Men's furnishings	61	64	71	127	139	151
Shirts and collars	62	65	73	122	126	148
Women's clothing	68	72	68	177	211	170
Women's underwear	58	62	63	146	158	150
Women's headwear	112	112	107	306	308	291
Miscellaneous sewing	73	76	81	163	179	197
Laundering and cleaning	90	89	88	197	195	196
Food and tobacco	77	77	83	174	178	184
Flour, feed, and cereals	109	115	119	217	227	232
Flour	109	118	123	196	216	231
Canning and preserving	29	31	36	108	108	128
Sugar and other groceries	88	82	95	194	182	213
Sugar refining	65	53	70	155	131	174
Meat and dairy products	113	111	117	230	222	245
Meat packing	113	113	116	229	225	243
Bakery products	136	139	140	304	324	295
Candy	119	123	132	282	307	305
Beverages	39	36	37	71	65	68
Tobacco	31	32	36	68	77	85
Water, light, and power	132	132	130	290	284	281
Total	97	98	101	224	232	232

Oklahoma

THE May 15, 1927, issue of the Oklahoma Labor Market, published by the Bureau of Labor Statistics of Oklahoma, shows the changes in employment and pay rolls in 710 establishments in that State from March to April, 1927, as follows:

**CHANGES IN EMPLOYMENT AND PAY ROLLS IN 710 INDUSTRIAL ESTABLISHMENTS
IN OKLAHOMA, MARCH TO APRIL, 1927**

Industry	Number of plants reporting	Employment			Pay roll	
		Number of em- ployees	Per cent of change as com- pared with March, 1927	Amount		
			Per cent of change as com- pared with March, 1927			
Cottonseed-oil mills.						
Food production:						
Bakeries	13	322	-8.0	\$6,113	-12.6	
Confections	33	596	+4.0	15,624	+2.0	
Creameries and dairies	7	45	+2.3	803	+2.9	
Flour mills	11	155	+6	3,090	-2.1	
Ice and ice cream	44	377	-5	9,270	+1.7	
Meat and poultry	33	370	+0.8	9,900	+10.9	
Lead and zinc:						
Mines and mills	14	1,475	-4.9	34,644	-6.8	
Smelters	46	2,944	-3.0	81,497	+2.7	
Metals and machinery:						
Auto repairs, etc.	29	1,122	+3.1	34,600	+4.4	
Machine shops and foundries	38	1,228	-3.8	35,268	-2.4	
Tank construction and erection	16	777	-12.6	20,141	-10.8	
Oil industry:						
Producing and gasoline manufacturing	123	4,693	+2.3	140,663	+5	
Refineries	66	5,885	-3.7	198,433	-3.3	
Printing: Job work	24	260	+4.8	7,686	+4.8	
Public utilities:						
Steam railway shops	11	1,729	-5	45,608	-3	
Street railways	6	804	+10.8	19,917	+7.3	
Water, light, and power	50	1,165	+1.7	34,114	+4.5	
Stone, clay, and glass:						
Brick and tile	11	423	+12.8	8,432	+4.3	
Cement and plaster	6	953	+8	24,667	+8	
Crushed stone	6	302	+6.0	4,050	+17.4	
Glass manufacture	9	873	+2.1	10,277	-2.9	
Textiles and cleaning:						
Textile manufacture	9	341	+6.6	4,481	+1	
Laundries, etc.	52	1,358	+7	24,486	+1.4	
Woodwork:						
Sawmills	14	397	-6.8	5,824	+15.7	
Millwork, etc.	20	332	-5.4	9,477	-3.2	
Total, all industries	710	31,236	-6	858,228	-5	

¹ As given in the report, items add to 708.

Wisconsin

THE Wisconsin Labor Market for May, 1927, issued by the State industrial commission, contains the following data on volume of employment in Wisconsin industries in April, 1927:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF PAY ROLL IN IDENTICAL ESTABLISHMENTS IN WISCONSIN INDUSTRIES FROM APRIL, 1926, AND MARCH, 1927, TO APRIL, 1927

Industry	Per cent of change—			
	March to April, 1927		April, 1926, to April, 1927	
	Employ- ment	Pay roll	Employ- ment	Pay roll
<i>Manual</i>				
Agriculture	+6.2	+1.0	+11.7	
Logging	-15.2	-10.8	-22.5	
Mining	+3.2	+10.9	-.7	+11.3
Lead and zinc	+6.7	+14.5	-.8	+13.9
Iron	-4.3	+3.3	-.5	+5.9
Stone crushing and quarrying	-1.2	+6.8	+22.2	+25.6
Manufacturing	-1.8	-1.8	-5.1	-7.4
Stone and allied industries	+.8	+10.0	-2.4	+2.4
Brick, tile, and cement blocks	+42.2	+39.7	+17.9	+9.9
Stone finishing	-10.2	+4.9	-9.0	+.9
Metal	-3.7	-5.0	-11.5	-16.9
Pig iron and rolling-mill products	-5.3	-3.9	-30.8	-26.5
Structural-iron work	-2.1	-8.7	-5.7	-7.5
Foundries and machine shops	-3.2	-10.2	-5.8	-7.7
Railroad repair shops	-.3	-4	-.6	+2.0
Stoves	-2.6	+5	-22.6	-28.2
Aluminum and enamelware	-4.1	-1.5	+5.0	+13.1
Machinery			-15.9	-13.4
Automobiles	-8.2	-17.1	-24.1	-51.1
Other metal products	-2.3	+10.5	-4.9	-2.0
Wood				
Sawmills and planing mills	-1.9	+.1	-7.2	-6.4
Box factories	-2.8	-.1	-12.1	-11.4
Panel and veneer mills	-5.1	+3.3	-5.1	-.4
Furniture	-6.8	-5.6	-13.5	-7.8
Sash, door, and interior finish	-2.1	-.1	-7.0	-8.0
Other wood products	+.7	+3.8	-.6	-1.4
Rubber	+.7	-5.4	-2.4	-6.9
Leather	+4.7	+13.1	+16.8	+31.2
Tanning	-5.2	-6.7	-17.0	-23.4
Boots and shoes	-3.0	+.4	-40.5	-46.3
Other leather products	-8.7	-12.1	-2.4	-8.5
Paper	-1.6	-4.7	-1.0	+1.1
Paper and pulp mills	+2.6	+4.7	+3.6	+3.6
Paper boxes	+4.5	+6.9	+5.2	+2.7
Other paper products	+4	-4.2	+7.0	+7.7
Textiles	-4.1	+1.1	-7.0	+4.9
Hosiery and other knit goods	-2.6	-10.5	-1.5	-.4
Clothing	-.2	-3.7	-3.3	-.4
Other textile products	-7.4	-25.0	+3.8	-1.6
Foods	-1.6	-4.7	-4.6	+1.6
Meat packing	-3.6	+.5	+6.9	+9.1
Baking and confectionery	-11.4	-3.5	+12.9	+22.3
Milk products	-4.7	-12.2	+.3	-8.8
Canning and preserving	-1.1	+3.3	+17.7	+20.2
Flour mills	+11.6	+7.6	-4.4	+3.8
Tobacco manufacturing	-9.9	+7.6	-5.5	-18.8
Other food products	-13.4	+34.9	+10.6	+59.3
Light and power	+6.4	+8.9	+10.5	+8.9
Printing and publishing	+6.3	+4.1	+23.3	+26.6
Laundering, cleaning, and dyeing	+1.2	+3.5	+6.2	+8.6
Chemical (including soap, glue, and explosives)	+3.4	+3.2	+5.9	+10.7
Construction:	+10.6	+7.3	-13.4	-12.9
Building	+26.1	+6.7	+9.1	+.9
Highway	+75.7	+34.7	+38.2	
Railroad	+37.4	+29.2	+19.5	+17.2
Marine, dredging, sewer-digging	+29.8	+25.1	-17.8	-13.6
Communication:				
Steam railways	-2.4	-5.6	-5.2	-.1
Electric railways	+5.1	+5.0	-7.2	+1.9
Express, telephone, and telegraph	+2.8	+3.4	-4.8	+.7
Wholesale trade	+1.3	+1.7	+6.9	+1.7
Hotels and restaurants	+2.8		+9.8	
<i>Nonmanual</i>				
Manufacturing, mines, and quarries	+.4	+.2	+4.9	+6.0
Construction	+2.7	+2.0	+2.7	+9.1
Communication	+1.4	+6.4	+.6	+4.6
Wholesale trade	+5.4	+12.5	-10.9	-4.0
Retail trade—Sales force only	+10.3	+8.0	+9.4	+6.2
Miscellaneous professional services	+.4	-.3	+8.5	-2.9
Hotels and restaurants	+1.7		-3.8	

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices¹ received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food May 15, 1926, and April 15 and May 15, 1927, as well as the percentage changes in the year and in the month. For example, the retail price per pound of potatoes was 6.0 cents on May 15, 1926; 3.7 cents in April, 1927; and 4.5 cents in May, 1927. These figures show a decrease of 25 per cent in the year, and an increase of 22 per cent in the month.

The cost of the various articles of food combined shows a decrease of 3.5 per cent May 15, 1927, as compared with May 15, 1926, and an increase of 1.1 per cent May 15, 1927, as compared with April 15, 1927.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, MAY 15, 1927, COMPARED WITH APRIL 15, 1927, AND MAY 15, 1926

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-) May 15, 1927, compared with	
		May 15, 1926	Apr. 15, 1927	May 15, 1927	May 15, 1926	Apr. 15, 1927
Sirloin steak.....	Pound.....	Cents 41.5	Cents 41.8	Cents 42.3	+2	+1
Round steak.....	do.....	35.8	36.4	37.0	+3	+2
Rib roast.....	do.....	30.4	30.9	31.2	+3	+1
Chuck roast.....	do.....	22.5	23.3	23.5	+4	+1
Plate beef.....	do.....	14.6	15.2	15.2	+4	
Pork chops.....	do.....	40.3	36.9	36.4	-10	-1
Bacon.....	do.....	49.3	48.1	47.6	-3	-1
Ham.....	do.....	55.9	56.7	56.3	+1	-1
Lamb, leg of.....	do.....	39.9	40.0	41.0	+3	+3
Hens.....	do.....	41.0	38.9	38.4	-6	-1
Salmon, canned, red.....	do.....	37.9	32.7	32.5	-14	-1
Milk, fresh.....	Quart.....	13.9	14.0	13.9	0	-1
Milk, evaporated.....	15-16 oz. can.....	11.5	11.4	11.5	0	+1
Butter.....	Pound.....	50.0	58.4	53.4	+7	-9
Oleomargarine (all butter substitutes).....	do.....	30.2	28.6	28.4	-6	-1

¹ In addition to monthly retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, MAY 15, 1927, COMPARED WITH APRIL 15, 1927, AND MAY 15, 1926—Continued.

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-) May 15, 1927, compared with—	
		May 15, 1926	May 15, 1927	May 15, 1927	May 15, 1926	May 15, 1927
Cheese.....	Pound.....	Cents 36.0	Cents 37.1	Cents 37.0	+3	-0.3
Lard.....	do.....	21.5	19.1	19.0	-12	-1
Vegetable lard substitute.....	do.....	25.6	25.1	25.0	-2	-0.4
Eggs, strictly fresh.....	Dozen.....	38.9	33.9	33.6	-14	-1
Bread.....	Pound.....	9.4	9.4	9.4	0	0
Flour.....	do.....	6.1	5.5	5.5	-10	0
Corn meal.....	do.....	5.1	5.1	5.1	0	0
Rolled oats.....	do.....	9.1	9.0	9.0	-1	0
Corn flakes.....	8-oz. pkg.....	11.0	10.2	10.1	-8	-1
Wheat cereal.....	28-oz. pkg.....	25.4	25.4	25.4	0	0
Macaroni.....	Pound.....	20.3	20.0	20.0	-1	0
Rice.....	do.....	11.7	10.7	10.6	-9	-1
Beans, navy.....	do.....	9.2	9.1	9.0	-2	-1
Potatoes.....	do.....	6.0	3.7	4.5	-25	+22
Onions.....	do.....	7.7	7.4	8.7	+13	+18
Cabbage.....	do.....	6.2	5.5	8.7	+40	+58
Beans, baked.....	No. 2 can.....	11.9	11.6	11.6	-3	0
Corn, canned.....	do.....	16.5	15.8	15.6	-5	-1
Peas, canned.....	do.....	17.5	17.0	16.8	-4	-1
Tomatoes, canned.....	do.....	11.9	12.1	12.1	+2	0
Sugar.....	Pound.....	6.7	7.3	7.3	+9	0
Tea.....	do.....	76.4	77.6	77.4	+1	-0.3
Coffee.....	do.....	51.0	48.8	48.2	-5	-1
Prunes.....	do.....	17.1	15.5	15.4	-10	-1
Raisins.....	do.....	14.7	14.3	14.3	-3	0
Bananas.....	Dozen.....	35.4	34.0	33.9	-4	-0.3
Oranges.....	do.....	53.1	48.3	49.8	-6	+3
Weighted food index.....					-3.5	+1.1

Table 2 shows for the United States average retail prices of specified food articles on May 15, 1913, and on May 15 of each year from 1921 to 1927, together with percentage changes in May of each of these specified years, compared with May, 1913. For example, the retail price per pound of round steak was 22.2 cents in May 1913; 35.6 cents in May, 1921; 32.5 cents in May, 1922; 33.0 cents in May, 1923; 34.6 cents in May, 1924; 35.0 cents in May, 1925; 35.8 cents in May, 1926; and 37.0 cents in May, 1927.

As compared with May 15, 1913, these figures show increases of 60 per cent in May, 1921; 46 per cent in May, 1922; 49 per cent in May, 1923; 56 per cent in May, 1924; 58 per cent in May, 1925; 61 per cent in May, 1926; and 67 per cent in May, 1927.

The cost of the various articles of food combined shows an increase of 60.8 per cent in May, 1927, as compared with May, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE, MAY 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH MAY 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on May 15—										Per cent of increase May 15, each specified year compared with May 15, 1913				
		1913 1917 1922 1923 1924					1925 1926 1927 1928 1929 1930					1931 1932 1933 1934 1935 1936 1937				
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	25.6	40.1	37.7	38.7	40.6	40.8	41.5	42.3	57	47	51	59	59	62	65
Round steak	do	22.2	23.5	6.32	5.33	0.34	0.35	0.35	0.37	60	46	49	56	58	61	67
Rib roast	do	20.0	30.0	2.27	9.28	2.29	4.29	8.30	4.31	2	51	40	41	47	49	52
Chuck roast	do	16.1	22.0	19.8	19.9	21.3	22.1	22.5	23.5	37	23	24	32	37	40	46
Plate beef	do	12.2	15.0	13.0	12.7	13.4	14.0	14.6	15.2	23	7	4	10	15	20	25
Pork chops	do	20.9	35.1	34.4	43.0	0.29	9.36	0.40	3.36	4	68	65	44	43	72	93
Bacon	do	25.9	43.5	5.30	8.39	1.35	1.48	4.49	3.47	0	62	48	45	34	72	88
Ham	do	26.7	48.7	7.51	3.45	3.44	7.53	0.55	9.58	3	82	92	70	67	99	109
Lamb, leg of	do	19.4	34.7	7.39	2.35	7.39	4.38	6.39	9.41	0	79	102	80	108	99	108
Hens	do	22.2	41.3	37.7	7.96	23.6	0.97	9.41	0.38	4	86	70	63	65	71	85
Salmon, canned, red	do	37.9	32.3	3.31	2.31	1.31	2.37	9.32	5							
Milk, fresh	Quart	8.8	14.4	12.5	13.5	5.13	6.13	7.13	9.13	9	64	42	53	55	58	58
Milk, evaporated	(?)	14.3	11.0	0.12	2.11	7.11	2.11	5.11	5.11	5						
Butter	Pound	35.9	42.5	54.4	9.52	1.46	1.51	9.58	0.58	4	18	25	45	28	45	39
Oleomargarine (all butter substitutes)	do	29.4	27.1	28.3	29.2	29.0	0.30	2.28	4							
Cheese	do	21.9	31.5	30.8	35.5	34.6	36.3	3.36	0.37	0	44	41	62	58	66	61
Lard	do	15.8	16.7	17.0	17.3	17.1	1.22	6.21	5.19	0	6	8	9	8	43	36
Vegetable lard substitute.	do	21.7	32.2	22.6	24.5	25.7	25.6	25.0								
Eggs, strictly fresh	Dozen	26.3	33.4	33.5	35.1	32.8	30.3	33.9	33.6	27	27	33	25	49	48	28
Bread	Pound	5.6	9.9	8.8	8.7	8.7	9.4	9.4	9.4	77	57	55	55	68	68	68
Flour	do	3.3	5.7	5.3	4.8	4.6	6.1	6.1	5.5	73	61	45	39	85	85	67
Corn meal	do	2.9	4.5	3.8	4.0	4.4	5.4	5.1	5.1	55	31	38	52	86	76	76
Roasted oats	do	9.9	8.7	8.8	8.8	9.3	9.1	9.0								
Corn flakes	(?)	12.6	10.0	9.7	9.7	11.0	11.0	11.0	10.1							
Wheat cereal	(?)	29.8	25.8	24.5	24.5	32.4	6.25	4.25	4							
Macaroni	Pound	21.0	20.1	1.19	7.19	5.20	5.20	3.20	0							
Rice	do	8.6	8.8	9.5	9.4	9.9	11.0	11.7	10.6	2	10	9	15	28	36	23
Beans, navy	do	7.9	9.7	11.4	9.8	10.3	9.2	9.0								
Potatoes	do	1.6	2.2	3.0	2.7	2.9	2.7	6.0	4.5	38	88	69	81	69	275	181
Onions	do	5.6	9.8	7.8	6.7	8.7	8.7	7.7	8.7							
Cabbage	do	5.6	5.7	5.7	8.0	7.7	5.6	6.2	8.7							
Beans, baked	(?)	14.6	13.1	13.0	12.7	12.7	12.5	11.9	11.6							
Corn, canned	(?)	15.9	13.5	15.4	15.8	13.1	13.6	15.6								
Peas, canned	(?)	17.5	17.8	17.5	18.1	18.5	17.5	16.8								
Tomatoes, canned	(?)	11.4	13.7	13.0	13.0	12.8	11.9	12.1								
Sugar granulated	Pound	5.4	8.4	6.6	11.2	9.2	7.2	6.7	7.3	56	22	107	70	33	24	35
Tea	do	34.4	70.0	67.9	69.3	71.1	75.6	76.4	77.4	20	26	27	31	39	40	42
Coffee	do	29.8	36.1	35.9	38.0	42.2	52.2	51.0	48.2	21	20	28	42	75	71	62
Prunes	do	18.7	20.4	19.5	17.6	17.2	17.1	15.4								
Raisins	do	31.0	24.2	21.7	18.5	15.5	14.5	14.7	14.3							
Bananas	Dozen	40.7	36.2	23.7	0.36	0.37	3.35	4.33	9							
Oranges	do	46.7	62.0	55.3	34.1	6.55	5.53	1.40	8							
Weighted food Index ⁵										40.8	44.0	48.3	45.9	56.0	66.7	60.8

¹ 15-16 ounce can.

² 8-ounce package.

³ 28-ounce package.

⁴ No. 2 can.

⁵ Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chop, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, rice, coffee, and tea.

Table 3 shows the changes in the retail prices of each of 22 articles of food for which prices have been secured since 1913, as well as the changes in the amounts of these articles that could be purchased for \$1 in specified years, 1913 to 1926, and in April and May, 1927.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR \$1 IN EACH YEAR, 1913 TO 1926, AND IN APRIL AND MAY, 1927

Year	Sirloin steak		Round steak		Rib roast		Chuck roast		Plate beef		Pork chops	
	Average retail price	Amt. for \$1										
1913	Cents per lb.	Lbs.										
1913	25.4	3.9	22.3	4.5	19.8	5.1	16.0	6.3	12.1	8.3	21.9	4.8
1920	43.7	2.3	39.5	2.5	33.2	3.0	26.2	3.8	18.3	5.5	42.3	2.4
1921	38.8	2.6	34.4	2.9	29.1	3.4	21.2	4.7	14.3	7.0	34.9	2.9
1922	37.4	2.7	32.3	3.1	27.6	3.6	19.7	5.1	12.8	7.8	33.0	3.0
1923	39.1	2.6	33.5	3.0	28.4	3.5	20.2	5.0	12.9	7.8	30.4	3.3
1924	39.6	2.5	33.8	3.0	28.8	3.5	20.8	4.8	13.2	7.6	30.8	3.2
1925	40.6	2.5	34.7	2.9	29.6	3.4	21.6	4.6	13.8	7.2	36.6	2.7
1926	41.3	2.4	35.6	2.8	30.3	3.3	22.5	4.4	14.6	6.8	39.5	2.5
1927:												
April	41.8	2.4	36.4	2.7	30.9	3.2	23.3	4.3	15.2	6.6	36.9	2.7
May	42.3	2.4	37.0	2.7	31.2	3.2	23.6	4.3	15.2	6.6	36.4	2.7
	Bacon	Ham		Hens		Milk		Butter		Cheese		
	Cents per lb.	Lbs.	Cents per lb.	Lbs.	Cents per lb.	Lbs.	Cents per qt.	Qts.	Cents per lb.	Lbs.	Cents per lb.	Lbs.
1913	27.0	3.7	28.9	3.7	21.3	4.7	8.9	11.2	38.3	2.6	22.1	4.5
1920	52.3	1.9	55.5	1.8	44.7	2.2	16.7	6.0	70.1	1.4	41.6	2.4
1921	42.7	2.3	48.8	2.0	39.7	2.5	14.6	6.8	51.7	1.9	34.0	2.9
1922	39.8	2.5	48.8	2.0	36.0	2.8	13.1	7.6	47.9	2.1	32.9	3.0
1923	39.1	2.6	45.5	2.2	35.0	2.9	13.8	7.2	55.4	1.8	36.9	2.7
1924	37.7	2.7	45.3	2.2	35.3	2.8	13.8	7.2	51.7	1.9	35.3	2.8
1925	46.7	2.1	52.6	1.9	36.6	2.7	14.0	7.1	54.8	1.8	36.7	2.7
1926	50.3	2.0	57.4	1.7	38.8	2.6	14.0	7.1	53.1	1.9	36.6	2.7
1927:												
April	48.0	2.1	50.7	1.8	38.9	2.6	14.0	7.1	58.4	1.7	37.1	2.7
May	47.6	2.1	56.3	1.8	38.4	2.6	13.9	7.2	53.4	1.9	37.0	2.7
	Lard	Eggs		Bread		Flour		Corn meal		Rice		
	Cents per lb.	Lbs.	Cents per doz.	Doz.	Cents per lb.	Lbs.						
1913	15.8	6.3	34.5	2.9	5.6	17.9	3.3	30.3	3.0	33.3	8.7	11.5
1920	29.5	3.4	68.1	1.5	11.5	8.7	8.1	12.3	6.5	15.4	17.4	5.7
1921	18.0	5.6	50.9	2.0	9.9	10.1	5.8	17.2	4.5	22.2	9.5	10.5
1922	17.0	5.9	44.4	2.3	8.7	11.5	5.1	19.6	3.9	25.6	9.5	10.5
1923	17.7	5.6	46.5	2.2	8.7	11.5	4.7	21.3	4.1	24.4	9.5	10.5
1924	19.0	5.3	47.8	2.1	8.8	11.4	4.9	20.4	4.7	21.3	10.1	9.9
1925	23.3	4.3	52.1	1.9	9.4	10.6	6.1	16.4	5.4	18.5	11.1	9.0
1926	21.9	4.6	48.5	2.1	9.4	10.6	6.0	16.7	5.1	19.6	11.6	9.6
1927:												
April	19.1	5.2	33.9	2.9	9.4	10.6	5.5	18.2	5.1	19.6	10.7	9.3
May	19.0	5.3	33.6	3.0	9.4	10.6	5.5	18.2	5.1	19.6	10.6	9.4
	Potatoes	Sugar		Tea		Coffee						
	Cents per lb.	Lbs.										
1913	1.7	58.8	5.5	18.2	54.4	1.8	20.8	3.4				
1920	6.3	15.9	19.4	5.2	73.3	1.4	47.0	2.1				
1921	3.1	32.3	8.0	12.5	69.7	1.4	36.3	2.8				
1922	2.8	35.7	7.3	13.7	68.1	1.5	36.1	2.8				
1923	2.9	34.5	10.1	9.9	69.5	1.4	37.7	2.7				
1924	2.7	37.0	9.2	10.9	71.5	1.4	43.3	2.3				
1925	3.6	27.8	7.2	13.9	75.5	1.3	51.5	1.9				
1926	4.9	20.4	6.9	14.5	76.7	1.3	51.0	2.0				
1927:												
April	3.7	27.0	7.3	13.7	77.6	1.3	48.8	2.0				
May	4.5	22.2	7.3	13.7	77.4	1.3	48.2	2.1				

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1926,² and by months for 1926, and for January through May, 1927. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1926 was 162.6, which means that the average money price for the year 1926 was 62.6 per cent higher than the average money price for the year 1913. As compared with the relative price, 159.8 in 1925, the figures for 1926 show an increase of nearly three points, but an increase of 1.75 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 153.6 for April, 1927, and 155.4 for May, 1927.

The curve shown in the chart on page 153 pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913 AND 1920 TO 1926, AND BY MONTHS FOR 1926, AND JANUARY THROUGH MAY, 1927

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1926: January	100.6	157.0	151.5	138.1	119.8	173.8	178.5	198.1	181.2	150.6	144.6	170.1
February	159.8	156.1	148.0	138.1	120.7	172.9	181.1	199.3	182.0	159.6	142.3	169.7
March	160.2	156.5	151.0	138.1	120.7	177.1	179.3	200.7	185.0	157.3	139.9	168.3
April	161.8	157.8	152.5	139.4	121.5	182.4	179.6	202.6	190.1	156.2	132.9	165.2
May	163.4	160.5	153.5	140.6	120.7	191.9	182.6	207.8	192.5	156.2	130.5	162.9
June	165.4	162.3	154.5	141.9	120.7	200.0	190.7	221.9	188.7	155.1	131.3	161.5
July	165.4	162.8	155.1	141.9	119.8	198.6	103.7	226.4	184.0	155.1	130.8	161.1
August	164.6	162.3	153.5	140.6	118.2	192.9	192.6	225.7	177.9	156.2	132.1	161.5
September	165.0	163.2	154.5	141.9	119.8	202.4	192.2	224.5	177.5	157.3	137.1	163.3
October	163.4	161.4	154.5	142.5	120.7	202.9	191.5	222.3	176.8	157.3	141.8	166.1
November	161.0	159.2	152.5	141.9	121.5	187.1	188.9	217.1	174.2	158.4	145.4	167.0
December	160.2	158.3	152.5	141.9	123.1	177.1	183.7	212.3	174.6	159.6	154.8	169.2
1927: January	160.6	158.3	153.0	141.9	124.0	174.3	181.1	211.2	180.8	158.4	152.5	170.1
February	161.0	158.7	153.5	141.9	123.1	171.0	179.6	210.8	180.8	158.4	153.5	170.1
March	161.8	159.6	153.5	142.5	123.1	174.3	179.3	210.0	181.7	158.4	154.6	168.8
April	164.0	163.2	156.1	145.6	125.6	175.7	178.2	210.8	182.6	157.3	152.5	167.9
May	166.5	165.9	157.6	146.9	125.6	173.3	176.3	200.3	180.3	156.2	139.4	167.4

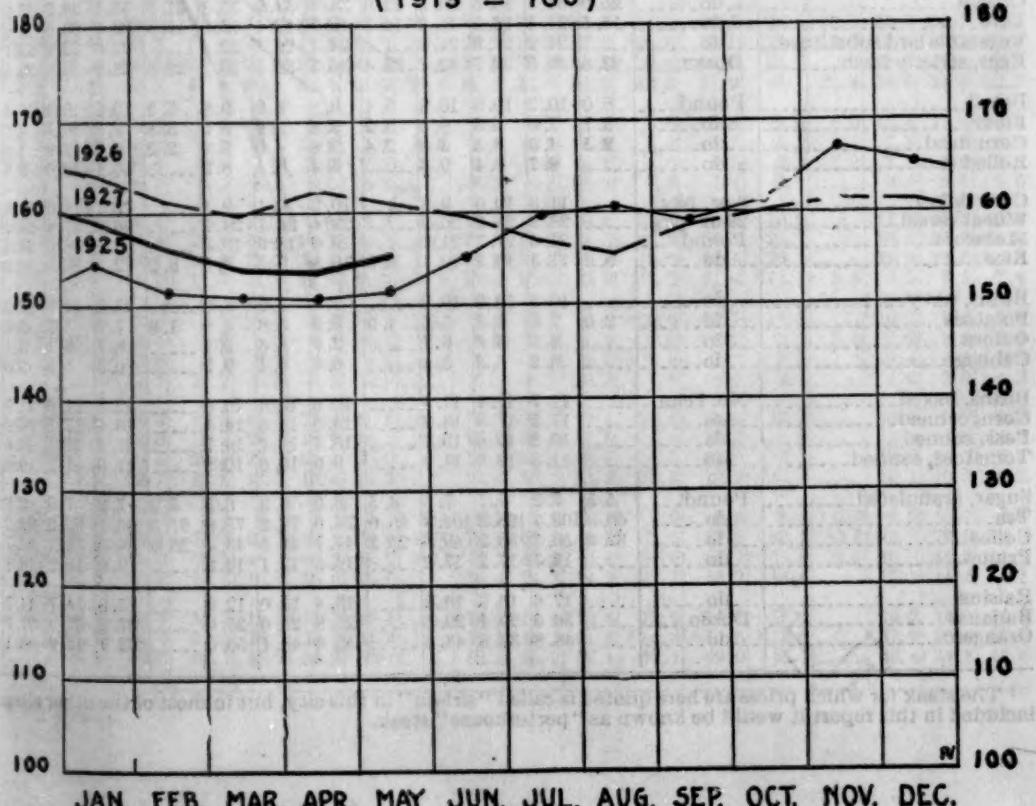
² For index numbers of each month, January, 1913, to December, 1925, see Bulletin No. 396, pp. 44 to 61, and Bulletin No. 418, pp. 38 to 51.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913 AND 1920 TO 1926, AND BY MONTHS FOR 1926, AND JANUARY THROUGH MAY 1927—Continued.

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Pota-toes	Sugar	Tea	Coffee	All articles ¹
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1926: January	141.1	156.2	167.9	187.9	173.3	133.3	341.2	121.8	139.9	172.1	164.3
February	140.5	127.0	167.9	190.9	173.3	133.3	335.3	121.8	139.9	172.1	161.5
March	138.6	111.6	167.9	187.9	173.3	134.5	329.4	121.8	139.9	172.1	159.9
April	136.1	111.9	167.9	184.8	170.0	134.5	394.1	120.0	140.3	171.5	162.4
May	136.1	112.8	167.9	184.8	170.0	134.5	352.9	121.8	140.4	171.1	161.1
June	143.0	118.0	167.9	184.8	170.0	134.5	294.1	125.5	141.4	171.1	159.7
July	144.9	122.0	167.9	181.8	170.0	134.5	241.2	125.5	141.5	171.5	157.0
August	143.7	130.1	167.9	181.8	170.0	133.3	211.8	127.3	141.7	171.1	155.7
September	141.1	149.3	167.9	175.8	170.0	134.5	229.4	127.3	141.5	171.1	158.5
October	138.6	168.7	167.9	172.7	170.0	133.3	223.5	129.1	142.1	170.8	160.0
November	133.5	191.3	167.9	172.7	170.0	129.9	235.3	129.1	141.7	170.5	161.6
December	129.1	189.0	167.9	169.7	170.0	128.7	235.3	132.7	141.4	170.1	161.8
1927: January	126.6	162.0	167.9	169.7	170.0	126.4	235.3	136.4	142.5	168.5	159.3
February	124.1	128.1	167.9	169.7	170.0	124.1	223.5	136.4	142.3	167.4	156.0
March	122.8	102.6	167.9	166.7	170.0	124.1	217.6	134.5	142.6	165.4	153.8
April	120.9	98.3	167.9	166.7	170.0	123.0	217.6	132.7	142.6	163.8	153.6
May	120.3	97.4	167.9	166.7	170.0	121.8	264.7	132.7	142.3	161.7	155.4

¹30 articles in 1907; 15 articles in 1908-1912; 22 articles in 1913-1920; 43 articles in 1921-1927.

TREND OF RETAIL PRICES OF FOOD. (1913 = 100)



Retail Prices of Food in

AVERAGE retail food prices are shown in Table 5 for 39 cities. For 12 other cities prices are shown for the same dates, with by the bureau until after 1913.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL
[Exact comparisons of prices in different cities can not be made for some articles.]

Article	Unit	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927
		Cts.	Cts.			Cts.	Cts.			Cts.	Cts.		
Sirloin steak	Pound	24.0	40.8	41.0	41.0	23.3	40.3	39.7	41.0	26.3	40.0	41.4	41.8
Round steak	do	21.0	36.3	36.4	37.8	22.0	36.4	36.5	39.1	22.5	34.9	35.4	35.6
Rib roast	do	19.1	31.8	31.8	32.3	18.7	30.1	30.8	31.0	19.9	27.8	28.9	29.1
Chuck roast	do	14.9	24.6	24.4	24.6	15.7	22.0	22.7	23.2	16.8	22.8	22.6	23.1
Plate beef	do	10.8	13.6	15.0	16.8	12.8	14.4	15.4	15.8	10.5	15.5	14.5	14.7
Pork chops	do	22.5	37.8	35.4	35.4	18.3	39.5	36.8	35.0	20.8	37.9	35.8	35.6
Bacon, sliced	do	31.0	47.5	45.7	45.6	23.3	45.3	43.0	41.0	33.1	48.8	47.0	47.1
Ham, sliced	do	29.0	54.6	58.5	57.5	31.0	59.1	57.9	56.9	30.0	55.8	55.3	55.3
Lamb, leg of	do	20.0	36.4	39.7	40.3	18.0	42.4	40.1	40.7	21.7	38.1	40.0	41.3
Hens	do	19.6	38.1	36.6	36.3	22.6	43.2	39.7	39.7	18.0	37.6	35.3	35.3
Salmon, canned, red	do	38.1	33.6	33.4	33.4	36.7	29.7	29.6	29.6	41.5	35.0	33.2	32.8
Milk, fresh	Quart	10.0	20.0	18.0	18.0	8.8	13.0	14.0	14.0	10.3	20.0	17.0	16.3
Milk, evaporated	15-16 oz. can	13.5	13.5	13.2	13.3	11.3	11.4	11.3	11.3	12.6	12.4	12.6	12.6
Butter	Pound	39.3	54.5	60.8	56.4	38.6	54.2	63.5	59.4	41.0	56.1	61.6	57.7
Oleomargarine (all butter substitutes)	do	32.5	26.7	26.9	26.9	30.8	29.6	28.6	28.6	36.2	33.0	33.0	33.3
Cheese	do	25.0	34.3	36.5	36.3	22.0	34.4	34.9	35.1	21.8	35.1	36.2	35.9
Lard	do	15.5	21.4	18.3	18.2	14.3	19.7	17.1	16.6	15.8	22.3	20.4	19.9
Vegetable lard substitute	do	24.2	21.0	21.0	21.0	24.1	22.3	22.4	22.4	22.0	22.2	22.1	21.8
Eggs, strictly fresh	Dozen	22.6	39.0	32.7	32.2	22.4	36.2	30.5	30.3	23.8	38.9	32.9	32.1
Bread	Pound	6.0	10.2	10.8	10.8	5.4	9.8	9.9	9.9	5.3	10.2	10.4	10.4
Flour	do	3.7	7.0	6.5	6.3	3.2	5.8	5.2	5.2	3.8	7.3	6.7	6.5
Corn meal	do	2.5	4.0	3.5	3.6	2.4	3.9	4.0	3.9	2.2	4.2	3.9	4.0
Rolled oats	do	9.7	9.4	9.3	9.3	8.4	8.1	8.2	8.2	10.1	10.0	9.8	9.8
Corn flakes	8-oz. pkg.	11.3	10.0	9.8	9.8	10.2	9.1	9.1	9.1	12.1	11.0	10.8	10.8
Wheat cereal	28-oz. pkg.	26.2	26.2	26.2	26.2	24.4	24.1	24.2	24.2	26.6	27.4	27.4	27.4
Macaroni	Pound	24.6	21.7	21.7	21.7	19.0	18.9	19.3	19.3	18.9	18.9	18.9	18.9
Rice	do	8.6	11.3	10.3	10.1	9.0	10.8	9.5	9.5	8.2	12.1	10.8	10.5
Beans, navy	do	10.5	10.2	10.2	10.2	7.9	7.9	8.0	8.0	11.1	10.0	10.0	10.0
Potatoes	do	2.0	7.5	5.1	5.8	1.9	6.9	3.6	4.9	1.9	7.7	5.2	5.9
Onions	do	8.5	8.6	9.1	9.1	7.9	6.5	9.1	9.1	8.7	8.1	9.1	9.1
Cabbages	do	6.2	5.2	5.3	5.3	6.6	6.1	9.2	9.2	6.8	5.8	5.6	5.6
Beans, baked	No. 2 can	11.7	11.4	11.4	11.4	10.6	10.4	10.6	10.6	12.5	11.6	11.7	11.7
Corn, canned	do	17.7	17.8	18.2	18.2	15.5	14.3	14.4	14.4	18.0	17.5	16.8	16.8
Peas, canned	do	19.2	10.6	19.7	19.7	15.7	14.7	14.7	14.7	21.9	21.1	20.8	20.8
Tomatoes, canned	do	11.3	12.0	11.6	11.6	9.9	10.6	10.8	10.8	11.0	11.1	10.9	10.9
Sugar, granulated	Pound	5.3	7.2	7.7	7.6	4.5	6.0	6.3	6.5	5.2	7.2	7.9	7.9
Tea	do	60.0	103.7	105.9	105.6	56.0	74.6	73.2	73.0	61.3	95.5	96.2	96.2
Coffee	do	32.0	50.7	50.2	49.8	25.2	47.7	43.5	43.5	28.8	54.3	53.4	52.7
Prunes	do	18.7	17.2	17.2	17.2	14.5	13.1	13.2	13.2	19.0	18.2	18.1	18.1
Raisins	do	17.6	18.3	16.2	16.2	13.4	13.0	12.9	12.9	15.0	14.7	14.7	14.7
Bananas	Dozen	30.0	20.1	29.5	29.5	25.8	25.0	25.0	25.0	37.2	37.5	37.5	37.5
Oranges	do	48.3	38.8	43.6	43.6	55.0	46.1	50.0	50.0	52.7	42.9	46.1	46.1

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

51 Cities on Specified Dates

for May 15, 1913 and 1926, and for April 15, and May 15, 1927.
the exception of May 15, 1913, as these cities were not scheduled

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES

[particular meats and vegetables, owing to differences in trade practices]

Boston, Mass.				Bridgeport, Conn.				Buffalo, N. Y.				Butte, Mont.				Charleston, S. C.			
May 15—		Apr.	May	May 15—		Apr.	May	May 15—		Apr.	May	May 15—		Apr.	May				
1913	1926	15, 1927	15, 1927	1926	1927	15, 1927	1926	1926	1927	15, 1927	1926	1926	1927	15, 1927	1926				
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.				
1.37.0	1.65.0	1.67.9	1.67.3	48.5	49.3	49.4	22.3	40.8	41.4	41.3	31.8	32.6	34.3	21.8	33.4	33.7	34.0		
31.0	51.4	53.7	53.8	41.5	42.5	42.8	19.3	34.2	35.1	35.5	27.3	30.0	31.1	20.5	30.9	31.3	31.3		
24.4	39.0	39.2	39.4	36.9	38.1	37.7	17.5	30.1	31.4	31.0	27.9	28.1	29.3	20.8	27.5	27.5	27.7		
17.0	27.3	28.8	29.8	27.0	27.7	28.1	15.3	22.9	24.2	24.3	19.0	20.3	21.3	15.0	20.4	21.9	21.5		
18.6	19.4	19.3	11.4	11.9	11.6	11.8	14.3	14.6	14.3	12.9	14.0	14.2	12.0	14.9	14.6	14.6			
23.4	43.6	39.3	38.7	42.5	38.7	38.1	19.8	42.5	39.3	39.0	37.4	36.1	36.1	22.3	37.3	35.5	35.5		
25.4	47.0	47.7	46.9	52.9	53.2	52.4	22.0	45.4	44.4	43.7	57.1	56.3	55.4	25.5	43.7	41.7	41.3		
31.8	60.3	61.4	60.8	59.9	60.0	59.6	25.7	55.4	54.7	54.1	59.6	60.8	61.3	26.7	51.9	52.4	51.8		
23.5	42.3	41.6	42.8	40.6	41.3	43.8	18.7	36.4	36.9	37.3	40.3	39.6	41.6	21.3	42.5	42.5	42.5		
25.0	45.2	41.1	41.6	45.0	41.9	42.3	22.5	41.7	40.6	40.2	39.8	39.3	39.2	21.4	42.3	38.5	38.3		
37.9	32.3	32.0	34.2	32.0	31.9	-----	37.7	31.4	31.1	32.5	31.3	31.0	-----	39.2	29.0	28.7	-----		
8.9	14.9	14.4	14.4	16.0	16.0	16.0	8.0	13.0	13.0	13.0	14.3	14.0	14.0	11.7	18.0	19.0	19.0		
12.3	12.1	12.1	11.4	11.6	11.5	-----	11.3	11.3	11.3	11.2	11.1	11.3	-----	12.0	11.9	11.8	-----		
36.0	50.2	60.4	57.4	50.1	60.5	55.8	34.1	49.4	50.2	53.8	48.3	52.0	49.1	36.2	49.4	58.0	52.4	-----	
29.7	29.6	29.3	29.5	28.9	28.9	-----	28.8	29.3	29.1	-----	-----	-----	-----	31.7	31.6	31.9	-----		
22.1	37.4	38.5	37.8	39.4	40.6	40.6	19.0	37.5	38.4	38.4	37.1	36.5	36.5	20.3	31.7	34.7	34.2		
16.0	21.0	19.3	19.4	20.9	18.6	18.2	14.3	20.2	18.1	17.8	24.6	23.3	23.4	15.0	22.9	20.3	20.0		
25.1	24.5	24.4	25.6	25.6	25.6	-----	25.8	26.3	26.3	29.6	29.5	29.7	-----	23.9	21.6	22.3	-----		
32.1	52.0	48.5	47.4	48.6	44.4	44.9	25.4	41.3	34.6	34.0	42.2	37.9	39.1	25.4	39.6	33.4	32.5		
8.9	9.1	8.6	8.6	9.0	8.9	8.9	5.6	9.0	8.7	8.7	9.8	9.8	9.8	6.0	10.4	11.0	11.0		
8.7	6.6	6.0	6.1	6.2	5.6	5.6	3.0	5.6	4.9	4.9	5.9	5.3	5.3	3.7	7.3	6.9	6.8		
8.6	6.5	6.6	6.5	7.7	7.9	7.7	2.5	5.5	5.0	5.1	6.0	5.8	5.9	2.3	3.9	3.9	3.8		
9.4	9.1	9.2	8.6	8.5	8.6	-----	8.8	8.8	8.6	7.4	7.4	7.4	-----	9.4	9.6	9.6	-----		
10.7	10.4	10.4	10.5	9.9	9.8	-----	10.4	9.7	9.6	12.3	10.9	10.9	-----	11.8	10.7	10.4	-----		
24.9	25.0	25.0	24.6	24.8	24.8	-----	24.6	24.7	24.5	28.8	28.5	28.7	-----	26.0	26.3	26.3	-----		
22.9	22.7	22.6	22.7	22.3	22.7	-----	21.8	21.3	21.3	18.9	20.4	20.1	-----	18.9	18.6	18.6	-----		
9.2	12.7	11.7	11.7	11.9	11.5	11.4	9.3	11.4	10.5	10.3	12.2	11.4	11.1	5.5	9.5	7.5	7.4		
10.0	9.8	9.9	9.9	9.6	9.2	-----	9.1	8.7	8.5	10.6	10.1	10.1	-----	10.0	9.6	9.8	-----		
1.8	5.5	3.4	4.2	6.2	3.3	4.1	1.4	6.2	3.0	4.3	4.6	2.7	3.2	2.0	7.2	3.9	3.9	-----	
7.7	7.8	9.1	8.9	7.6	9.0	-----	8.7	7.1	9.7	5.6	7.2	8.3	-----	8.4	7.8	7.8	-----		
7.4	7.1	11.2	9.0	6.2	9.9	-----	6.8	5.3	10.7	7.8	6.9	9.4	-----	4.6	3.9	4.2	-----		
13.4	13.3	13.3	11.3	11.1	11.4	-----	10.3	9.9	9.8	14.6	13.9	13.9	-----	10.0	9.7	9.7	-----		
19.0	18.2	19.3	18.9	18.2	-----	16.6	16.6	15.5	15.8	15.0	14.8	-----	15.0	13.9	14.4	-----	-----		
20.6	20.5	20.3	21.1	21.1	20.9	-----	15.9	16.0	15.9	14.5	15.0	15.3	-----	17.9	17.2	17.3	-----		
12.1	12.7	12.6	13.2	13.1	13.2	-----	13.6	13.5	13.2	12.8	13.3	13.3	-----	10.1	10.5	10.2	-----		
5.2	6.7	7.3	7.4	6.4	7.1	7.1	5.3	6.3	7.0	7.1	7.9	8.6	8.5	5.0	6.2	6.7	6.8		
58.6	75.3	76.1	75.6	60.3	60.2	60.9	45.0	71.9	69.8	68.3	83.5	82.3	82.2	50.0	76.7	76.9	76.9		
33.0	55.4	55.0	53.1	48.3	48.3	46.2	29.3	48.7	47.2	46.6	57.0	54.7	55.0	26.0	46.8	45.2	44.5		
16.5	15.6	15.3	16.0	15.6	15.6	-----	16.4	14.3	14.2	17.3	15.2	15.6	-----	15.5	14.5	14.1	-----		
14.1	13.4	13.3	13.9	14.1	14.1	-----	14.2	13.6	13.6	15.9	15.1	15.1	-----	14.2	14.1	14.3	-----		
46.3	46.9	45.6	36.1	33.8	34.4	-----	41.8	42.2	41.6	14.8	14.8	13.9	-----	37.9	26.9	25.6	-----		
56.8	50.6	52.1	55.2	54.2	56.4	-----	56.8	55.2	54.4	49.1	49.0	45.7	-----	49.4	34.8	43.6	-----		

* Per pound.

TABLE 5.—AVERAGE RETAIN PRICES OF THE PRINCIPAL ARTICLES

Article	Unit	Chicago, Ill.				Cincinnati, Ohio				Cleveland, Ohio			
		May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927
		1913	1926			1913	1926			1913	1926		
Sirloin steak	Pound	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Round steak	do	22.6	43.4	44.7	45.0	23.9	38.1	37.5	37.7	25.2	39.2	39.8	41.3
Rib roast	do	19.1	35.7	35.8	35.9	21.0	33.5	34.3	34.4	22.0	33.1	33.8	35.8
Chuck roast	do	19.1	34.2	34.6	35.3	19.3	29.7	31.3	31.4	20.0	28.0	29.1	29.3
Plate beef	do	15.2	24.9	25.3	25.4	15.6	21.5	23.1	23.1	17.2	23.3	24.4	24.7
Pork chops	do	11.3	14.8	15.1	15.1	12.4	15.5	15.5	15.8	12.1	13.7	14.1	14.3
Bacon, sliced	do	18.0	38.9	35.5	34.3	19.5	38.8	34.5	34.1	21.0	42.6	37.1	35.9
Ham, sliced	do	31.4	53.7	51.8	51.6	25.7	44.6	41.7	41.4	27.1	50.6	48.0	47.3
Lamb, leg of	do	20.3	40.2	41.1	42.2	16.8	39.1	38.1	39.4	21.0	39.2	39.0	39.4
Hens	do	21.2	41.6	39.6	39.0	24.6	43.3	42.2	40.2	22.9	43.7	41.2	39.3
Salmon, canned, red	do	30.6	34.6	34.2	—	—	37.0	30.7	30.2	—	39.1	33.1	33.2
Milk, fresh	Quart	8.0	14.0	14.0	14.0	8.0	12.0	13.3	13.3	8.0	13.7	13.7	13.7
Milk, evaporated	15-16 oz. can.	10.9	11.2	11.2	—	10.8	10.9	11.2	—	11.2	11.3	11.3	11.3
Butter	Pound	32.5	47.2	57.7	51.8	35.9	49.1	50.3	52.7	36.8	51.9	61.9	55.6
Oleomargarine (all butter substitutes)	do	26.7	27.1	27.0	—	—	29.6	27.6	27.7	—	31.7	29.1	29.2
Cheese	do	25.3	41.4	41.9	42.1	21.0	35.0	35.8	36.4	23.0	37.3	38.2	38.5
Lard	do	14.7	20.8	18.9	18.8	14.1	19.4	16.9	17.0	16.5	22.5	20.6	20.5
Vegetable lard substitute	do	26.3	26.6	26.6	—	—	25.4	25.8	25.8	—	27.1	26.9	26.7
Eggs, strictly fresh	Dozen	23.7	41.5	35.8	36.3	22.0	35.0	28.6	27.8	25.6	39.8	35.2	35.1
Bread	Pound	6.1	9.8	9.9	9.9	4.8	9.1	9.0	8.9	5.5	8.0	7.7	7.7
Flour	do	2.8	5.5	5.0	5.2	3.3	6.3	5.7	5.7	3.2	6.1	5.5	5.5
Corn meal	do	2.9	6.0	6.8	6.8	2.6	4.1	4.0	3.9	2.7	5.2	5.4	5.4
Rolled oats	do	—	8.3	8.6	8.6	—	8.6	8.7	8.8	—	9.4	9.5	9.3
Corn flakes	8-oz. pkg.	—	9.9	9.8	9.8	—	10.3	9.7	9.8	—	11.3	10.6	10.4
Wheat cereal	28-oz. pkg.	—	24.4	25.5	25.4	—	24.7	24.8	24.8	—	25.3	25.4	25.3
Macaroni	Pound	19.1	19.6	19.3	—	—	18.3	18.3	18.5	—	21.9	21.5	21.5
Rice	do	8.7	11.9	11.5	11.7	8.8	11.5	10.2	10.0	8.5	12.1	11.0	11.4
Beans, navy	do	—	9.1	9.4	9.5	—	7.6	7.7	7.5	—	7.7	8.4	8.4
Potatoes	do	1.3	5.7	3.2	4.3	1.6	6.5	3.9	4.6	1.5	6.4	3.8	5.1
Onions	do	—	7.9	7.6	8.8	—	7.6	6.9	8.3	—	8.3	6.8	9.6
Cabbage	do	—	6.3	5.6	10.1	—	5.9	5.7	9.2	—	6.0	5.5	9.7
Beans, baked	No. 2 can	12.7	12.7	12.7	—	10.9	10.4	10.3	—	12.8	13.0	13.2	—
Corn, canned	do	17.1	16.3	16.3	—	15.6	15.1	14.9	—	17.3	16.6	16.2	—
Peas, canned	do	16.8	16.8	16.8	—	17.2	17.0	17.0	—	17.8	18.2	18.2	—
Tomatoes, canned	do	13.7	13.8	13.7	—	11.8	12.4	12.0	—	13.3	14.1	14.1	—
Sugar, granulated	Pound	4.9	6.4	7.1	7.0	5.0	6.8	7.3	7.3	5.1	6.9	7.6	7.7
Tea	do	53.3	72.3	73.0	72.8	60.0	78.0	76.5	76.0	50.0	81.0	81.8	81.8
Coffee	do	30.7	51.7	48.7	47.4	25.6	46.5	43.5	42.5	26.5	54.1	52.2	52.2
Prunes	do	—	18.1	17.8	17.8	—	17.7	16.2	16.0	—	17.4	15.3	15.6
Raisins	do	—	15.3	15.1	15.2	—	14.7	14.3	14.5	—	14.6	14.9	14.7
Bananas	Dozen	—	41.4	38.5	39.2	—	38.8	35.5	36.0	—	210.0	10.4	10.4
Oranges	do	—	56.8	53.3	52.7	—	54.9	44.4	47.0	—	5.31	50.3	52.0

¹ The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.			Fall River, Mass.			
May 15, 1926	Apr. 15, 1927	May 15, 1927	May 15—		May 15, 1927	May 15—		May 15, 1927	May 15—		May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927
			1913	1926		1913	1926		1913	1926		1913	1926		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
38.6	40.1	40.1	22.5	36.8	37.0	37.1	23.9	33.8	33.6	34.8	23.8	41.5	41.7	42.4	34.5
34.2	35.4	35.4	20.3	32.3	33.3	33.8	21.8	29.6	29.7	32.0	19.4	34.8	35.5	36.0	27.0
30.5	31.6	32.1	19.2	28.6	27.4	27.3	17.8	24.4	24.3	25.1	19.2	30.8	31.5	32.0	23.8
24.4	25.5	25.8	16.3	21.9	22.4	22.1	15.8	19.5	19.6	20.4	15.0	22.6	23.3	23.7	18.5
15.6	16.2	16.2	12.9	17.0	17.9	17.5	9.4	11.6	11.4	12.0	11.5	14.3	14.6	14.5	12.9
37.3	35.2	35.2	20.8	37.9	35.8	35.8	20.3	39.1	33.5	33.0	19.2	42.4	38.6	37.5	22.5
49.1	50.2	50.1	38.0	43.6	47.5	46.2	28.0	49.1	47.9	48.4	23.5	52.0	50.0	50.4	25.8
55.4	57.3	56.9	31.3	59.3	59.9	59.5	30.0	55.9	57.1	57.4	25.0	60.9	61.1	60.2	31.3
45.0	43.3	47.0	22.0	42.0	46.4	44.3	17.9	36.8	37.2	37.8	17.8	41.6	41.4	42.1	20.5
41.9	39.0	38.9	19.1	33.8	32.8	31.8	21.6	36.0	34.2	33.0	22.4	43.8	41.0	40.0	25.8
40.3	35.6	34.7	-----	42.1	34.6	34.1	-----	38.4	33.5	32.7	-----	39.8	32.9	32.6	-----
11.0	12.0	12.0	10.0	12.3	13.0	11.0	8.4	12.0	12.0	12.0	8.0	14.0	14.0	14.0	9.0
11.3	11.4	11.4	-----	13.2	13.3	13.1	-----	11.0	10.4	10.7	-----	11.1	11.1	11.2	-----
48.0	58.0	51.8	36.0	48.9	54.8	50.5	34.3	45.4	54.1	48.1	34.7	51.3	60.1	53.7	36.4
29.2	28.7	28.0	-----	33.8	30.9	30.7	-----	29.2	24.8	24.8	-----	29.0	28.8	28.0	-----
35.3	36.5	36.6	20.0	34.3	37.0	36.9	26.1	37.6	37.3	37.2	20.3	37.4	38.1	38.0	23.8
18.7	16.2	16.1	17.0	25.0	21.7	22.1	16.3	22.5	19.9	19.6	16.1	22.2	19.0	18.7	15.0
25.8	26.0	26.0	-----	24.2	23.3	22.6	-----	23.8	22.2	21.5	-----	27.3	27.1	27.1	-----
33.5	27.8	27.4	21.0	33.4	28.8	27.7	23.6	35.0	30.8	30.0	25.0	39.0	32.9	34.2	30.3
8.1	8.0	8.0	5.5	9.5	9.5	9.5	5.4	8.4	8.1	8.1	5.6	8.4	8.4	8.4	6.2
6.1	5.3	5.5	3.3	6.0	5.5	5.3	2.6	5.1	4.3	4.2	3.1	6.0	5.4	5.2	3.3
3.8	3.7	3.7	2.7	4.5	4.2	4.3	2.4	4.2	4.3	4.4	2.8	5.8	5.8	6.0	3.4
9.3	9.4	9.4	-----	10.0	10.4	10.5	-----	8.8	7.8	7.5	-----	9.4	9.4	9.4	-----
11.0	10.2	10.1	-----	11.0	11.3	11.1	-----	11.7	10.3	10.0	-----	10.6	10.2	10.0	-----
25.0	26.0	26.2	-----	27.4	27.8	27.8	-----	26.6	24.7	24.8	-----	25.9	25.6	25.9	-----
22.0	20.8	21.0	-----	21.1	22.1	21.9	-----	20.5	20.0	19.6	-----	21.9	22.2	22.1	-----
13.9	12.7	12.0	9.3	12.0	11.8	11.8	8.6	11.7	10.1	9.9	8.4	12.1	12.1	12.1	10.0
7.7	7.8	7.8	-----	10.1	10.5	10.6	-----	10.2	9.3	9.8	-----	8.3	8.0	7.9	-----
6.1	3.5	4.6	1.8	7.0	5.3	6.2	1.2	5.2	3.6	4.7	1.3	5.2	2.9	4.1	1.8
8.5	7.6	10.2	-----	8.1	9.0	8.7	-----	7.2	5.9	7.2	-----	7.6	6.5	8.8	-----
7.0	6.0	10.1	-----	5.4	5.4	7.0	-----	5.2	5.1	.5	-----	6.3	5.1	9.8	-----
12.5	12.6	12.6	-----	13.9	13.5	13.5	-----	12.2	11.2	11.3	-----	11.5	11.0	11.4	-----
15.7	14.6	14.0	-----	18.0	18.2	18.2	-----	15.6	13.9	13.9	-----	15.9	16.0	15.9	-----
15.4	15.3	14.9	-----	21.6	21.7	22.0	-----	15.9	14.6	14.8	-----	16.5	16.5	16.5	-----
12.3	12.8	13.0	-----	11.6	12.9	12.7	-----	13.1	11.7	11.6	-----	11.9	12.6	12.7	-----
7.0	7.8	7.7	5.7	7.4	8.0	8.2	5.3	7.5	7.6	7.7	4.9	6.9	7.5	7.5	5.3
89.3	89.3	88.8	66.7	106.6	105.6	106.1	52.8	67.1	69.0	69.0	43.3	73.3	73.8	75.2	44.2
51.6	49.3	48.9	36.7	59.9	58.9	58.1	29.4	51.9	49.5	49.5	29.3	51.9	50.1	50.1	33.0
18.0	16.8	16.9	-----	20.9	20.9	20.4	-----	18.1	16.2	16.1	-----	18.0	17.2	17.4	-----
15.0	14.3	14.3	-----	16.6	15.8	16.5	-----	14.8	14.5	14.6	-----	15.2	14.8	15.1	-----
37.8	38.1	38.1	-----	35.0	33.8	37.5	-----	12.0	10.5	10.4	-----	35.3	35.0	35.4	-----
54.4	51.7	54.5	-----	56.6	50.4	50.1	-----	47.5	48.4	45.8	-----	54.7	53.5	55.9	-----
1 Per pound.															

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article	Unit	Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.				
		May 15, 1926	Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927
					1913	1920			1913	1926		
Sirloin steak	Pound	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Round steak	do	33.2	35.4	35.4	24.7	38.6	38.3	39.4	26.0	37.4	36.3	35.8
Rib roast	do	31.9	33.6	33.9	23.3	37.4	37.1	38.3	23.0	32.8	31.3	31.3
Chuck roast	do	26.3	26.8	27.1	17.0	29.8	29.1	29.7	23.3	27.0	27.1	27.1
Plate beef	do	20.2	22.1	21.6	10.1	24.6	24.7	24.8	14.0	20.8	20.0	19.8
Pork chops	do	17.6	17.5	18.0	12.1	15.4	15.0	15.7	10.3	13.2	12.5	12.5
Bacon, sliced	do	37.5	35.1	35.5	21.7	39.5	34.6	34.4	21.3	39.2	35.4	35.4
Ham, sliced	do	49.4	48.1	48.0	29.0	46.0	44.1	43.4	26.3	47.3	45.4	44.4
Lamb, leg of	do	52.1	53.9	53.9	30.3	57.5	57.5	56.3	28.3	53.3	53.6	52.7
Hens	do	37.0	34.3	34.3	20.7	41.4	43.3	42.0	19.3	40.3	39.0	38.8
Salmon, canned, red	do	39.2	35.5	32.7	22.0	41.8	38.3	37.5	22.0	40.6	38.4	37.7
Milk, fresh	Quart	37.1	30.5	30.4	—	36.1	33.3	33.3	—	38.7	33.2	33.4
Milk, evaporated	15-16-oz. can	15.8	15.6	15.6	8.0	12.0	12.0	12.0	12.5	22.0	21.7	20.3
Butter	Pound	46.9	54.1	47.2	34.7	48.4	58.8	52.9	39.2	52.7	60.2	55.2
Oleomargarine (all butter substitutes)	do	31.2	28.2	28.0	—	30.0	30.5	29.5	—	31.5	30.6	30.6
Cheese	do	30.9	32.2	33.0	20.8	35.8	37.0	37.8	22.5	31.9	34.3	34.2
Lard	do	22.2	19.6	18.9	15.2	19.2	17.0	16.9	15.5	23.1	21.6	21.5
Vegetable lard substitute	do	19.4	16.4	16.6	—	26.7	27.3	27.4	—	24.4	22.8	22.0
Eggs, strictly fresh	Dozen	32.8	26.0	26.6	21.8	34.1	27.9	27.9	28.8	39.1	33.9	34.4
Bread	Pound	9.0	8.6	8.5	5.1	8.0	8.1	8.1	6.5	11.0	11.1	11.1
Flour	do	6.0	5.2	5.1	3.2	5.9	5.5	5.5	3.8	7.0	6.4	6.4
Corn meal	do	3.9	4.0	3.9	2.5	4.2	4.1	4.1	2.9	4.1	3.8	4.0
Rolled oats	do	8.9	8.7	8.7	—	8.1	8.3	8.3	—	9.3	9.3	9.4
Corn flakes	8-oz. pkg	11.7	10.6	10.2	—	10.2	9.8	9.6	—	11.3	10.1	9.9
Wheat cereal	28-oz. pkg	26.0	25.4	25.0	—	24.6	24.8	24.8	—	24.9	24.5	24.6
Macaroni	Pound	18.3	18.6	18.1	—	19.0	19.2	19.2	—	19.7	19.3	19.6
Rice	do	10.3	9.0	8.6	9.2	11.7	10.7	10.6	6.6	11.2	9.4	9.1
Beans, navy	do	9.5	9.1	9.2	—	7.9	8.2	7.9	—	10.4	9.6	9.7
Potatoes	do	0.4	4.8	4.9	1.3	5.6	3.0	4.4	2.3	7.4	4.2	4.7
Onions	do	6.5	7.4	7.8	—	8.6	7.5	9.7	—	8.3	8.4	8.4
Cabbage	do	3.7	4.6	5.0	—	5.5	5.1	9.9	—	5.3	5.1	5.3
Beans, baked	No. 2 can	11.6	11.2	11.2	—	10.1	9.9	9.9	—	10.9	10.5	10.7
Corn, canned	do	15.7	14.0	13.7	—	14.8	14.1	13.9	—	19.9	17.0	17.2
Peas, canned	do	14.2	13.6	13.5	—	14.8	14.3	13.7	—	18.9	17.1	17.8
Tomatoes, canned	do	10.2	11.0	10.8	—	11.1	13.0	12.8	—	10.5	10.9	10.8
Sugar, granulated	Pound	6.9	7.1	7.1	5.6	7.0	7.6	7.6	5.9	7.0	7.6	7.8
Tea	do	80.8	84.3	83.8	60.0	87.0	87.9	87.5	60.0	98.4	98.8	98.0
Coffee	do	44.8	42.1	42.0	30.8	50.9	48.3	48.1	34.5	50.2	48.7	48.8
Prunes	do	16.0	15.1	14.6	—	19.3	17.1	17.1	—	18.8	15.9	15.5
Raisins	do	14.6	14.1	14.3	—	15.9	15.2	15.2	—	15.6	14.6	14.5
Bananas	Dozen	28.5	26.2	26.5	—	30.9	29.1	30.0	—	28.0	29.2	29.7
Oranges	do	42.5	44.8	44.4	—	49.5	47.3	46.5	—	48.8	29.2	31.5

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Kansas City, Mo.			Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.							
May 15 1913	Apr. 15, 1927	May 15, 1927	May 15— 1913 1926		Apr. 15, 1927	May 15— 1913 1926		May 15— 1913 1926		Apr. 15, 1927	May 15— 1913 1926		May 15— 1913 1926						
			Cts.	Cts.		Cts.	Cts.	Cts.	Cts.		Cts.	Cts.	Cts.	Cts.					
24.7	38.9	37.3	37.7	26.3	34.4	36.0	36.0	24.0	36.9	37.7	37.1	23.2	35.4	35.8	37.9	35.8	56.6	58.8	59.0
21.6	33.9	32.6	33.4	20.0	31.4	32.7	33.2	20.8	30.3	30.9	30.8	19.6	31.7	32.3	34.0	28.8	45.5	48.3	48.5
18.4	26.7	26.6	26.7	19.4	27.7	27.8	28.9	19.1	29.9	29.7	29.3	17.6	27.3	26.5	27.8	20.7	28.2	29.2	29.4
14.9	19.9	19.2	19.4	16.3	21.6	21.4	21.2	9.15.5	19.5	21.1	19.7	14.9	19.2	20.5	21.8	16.8	23.5	23.7	24.9
12.0	13.6	13.4	13.4	13.5	16.1	16.4	16.7	12.4	14.5	14.3	14.1	12.4	16.1	16.9	16.7	16.7	16.6	16.7	
10.2	38.7	33.8	32.4	21.3	37.3	33.2	33.6	25.4	45.4	42.8	41.9	19.6	38.8	32.5	32.3	20.5	39.2	35.9	35.8
28.8	51.0	46.1	45.5	37.0	50.0	49.2	47.9	33.8	58.3	55.6	54.7	27.8	49.4	47.7	46.9	23.5	42.8	41.9	40.8
27.8	58.1	54.3	53.9	31.3	52.9	54.6	55.5	35.0	66.8	70.0	69.2	22.8	6.6	52.3	51.9	28.5	47.4	46.6	47.3
18.7	34.9	35.6	36.7	20.2	40.7	42.0	40.0	19.2	35.8	36.8	36.4	17.5	41.0	40.3	41.7	20.7	38.9	39.3	39.7
18.7	35.8	34.6	32.6	20.0	33.2	31.1	31.0	25.8	45.9	44.5	43.3	24.1	39.6	38.8	36.0	24.7	44.7	43.4	43.2
38.9	35.0	34.5	34.5	34.5	41.7	33.5	32.5	—	36.5	31.0	31.2	—	38.4	31.3	30.5	—	38.4	32.0	31.7
8.7	13.0	13.0	13.0	10.0	15.0	15.0	15.0	10.0	15.0	15.0	15.0	8.8	12.0	12.0	8.0	14.0	13.8	13.8	
11.7	11.5	11.5	11.7	—	12.3	11.9	11.9	—	9.9	10.2	10.2	—	11.5	11.8	11.9	—	12.8	12.8	12.7
33.3	47.6	58.3	51.0	39.6	50.9	56.6	53.2	35.0	50.4	52.8	50.3	38.6	49.1	59.6	54.4	38.3	51.3	61.1	57.0
27.7	25.9	25.8	—	30.3	28.5	28.5	—	31.0	26.6	26.3	—	33.2	27.5	27.4	—	26.0	25.8	25.8	
21.7	38.1	36.6	36.0	21.7	35.1	37.3	37.4	19.5	38.9	38.1	38.2	21.7	36.6	37.1	36.8	22.0	36.1	36.8	35.9
16.2	21.1	18.6	18.3	15.6	23.5	21.7	21.8	17.9	23.2	19.6	19.2	15.4	21.2	17.7	17.9	16.0	20.8	18.3	18.4
28.0	27.0	27.3	—	23.7	21.9	22.5	—	26.3	24.7	24.6	—	28.5	29.3	29.1	—	25.2	26.6	26.1	
21.4	35.9	30.3	29.2	23.0	34.8	28.9	27.2	27.5	39.8	31.6	31.9	21.7	34.0	27.0	26.3	28.3	44.7	40.5	39.5
4.0	10.0	9.7	9.7	6.0	9.5	9.3	9.3	6.2	8.6	8.5	8.5	5.7	9.4	9.3	9.3	6.1	8.7	8.7	8.7
3.0	6.0	4.6	4.7	3.6	6.9	6.1	6.1	3.6	5.6	5.3	5.3	3.6	6.9	5.9	5.8	3.4	6.4	5.7	5.7
2.5	5.0	4.8	4.8	2.4	4.1	3.8	3.8	3.2	5.3	5.2	5.2	2.3	3.7	3.8	4.0	3.6	5.3	5.3	5.1
9.2	9.2	9.1	—	10.8	10.1	10.1	—	9.6	10.0	10.0	—	8.5	8.5	8.6	—	8.8	9.2	9.0	
12.2	10.5	10.3	—	12.1	11.0	10.7	—	10.0	9.6	9.7	—	11.0	10.1	9.8	—	11.0	10.1	10.0	
27.1	26.4	26.5	—	25.3	25.9	25.9	—	24.9	25.1	25.1	—	24.3	25.5	25.3	—	25.6	25.6	25.5	
20.3	19.5	19.9	—	19.7	20.2	20.2	—	17.6	18.4	18.3	—	19.5	19.1	18.9	—	24.1	23.9	23.7	
8.7	11.1	9.4	9.4	8.3	10.7	8.4	8.4	7.7	11.4	10.2	10.0	8.1	11.3	11.4	11.3	8.5	11.2	10.0	10.0
9.2	9.2	8.9	—	9.5	9.4	9.0	—	9.3	9.3	9.2	—	7.7	7.8	7.9	—	9.0	9.0	8.9	
L 4	5.2	3.7	4.5	1.8	6.8	4.6	5.2	1.1	5.7	4.5	4.7	1.7	7.0	3.6	4.9	1.5	4.9	3.0	4.0
8.0	8.2	8.6	—	7.9	9.4	9.0	—	6.4	7.5	7.4	—	8.1	9.2	10.1	—	7.0	6.9	7.8	
5.4	4.9	9.6	—	5.3	4.8	7.6	—	4.7	4.6	5.7	—	6.0	5.6	7.6	—	7.5	6.3	11.0	
13.3	12.5	12.5	—	11.3	10.6	10.6	—	11.5	11.1	11.1	—	10.9	10.2	10.2	—	14.3	13.3	13.4	
14.3	14.0	14.1	—	16.5	16.8	16.2	—	16.2	15.6	15.7	—	16.6	13.9	14.3	—	17.5	16.6	15.9	
15.1	14.5	14.6	—	17.5	18.8	17.8	—	17.2	17.0	16.9	—	15.6	14.4	14.6	—	19.1	18.7	17.7	
12.2	11.5	11.5	—	11.4	10.7	11.1	—	15.6	15.1	14.5	—	9.8	11.2	10.8	—	11.5	13.3	13.1	
5.5	7.3	7.5	7.5	5.5	7.4	8.2	8.0	5.3	6.4	7.0	7.0	5.1	7.0	7.8	7.6	5.1	7.0	7.5	7.5
54.0	82.7	89.4	89.4	50.0	105.1	106.3	107.4	54.5	76.8	74.4	74.9	62.5	79.9	91.1	91.2	46.3	63.9	63.5	63.2
27.3	53.5	50.2	49.1	39.8	55.5	52.2	51.6	36.3	54.3	50.1	51.6	27.5	49.5	49.1	47.7	32.0	51.8	50.3	48.7
17.7	16.2	16.2	—	18.5	16.9	17.1	—	16.2	15.1	14.9	—	16.9	15.3	15.4	—	16.2	14.6	14.1	
15.5	14.8	14.7	—	15.8	15.5	15.7	—	13.2	12.9	12.8	—	15.7	14.5	14.8	—	14.4	13.8	13.9	
10.9	10.5	10.4	—	9.0	9.1	8.9	—	10.1	9.6	9.5	—	10.4	10.3	9.3	—	8.6	9.8	9.4	
51.7	51.6	50.9	—	49.0	49.6	52.9	—	46.1	44.2	45.7	—	47.7	39.6	45.5	—	50.2	50.2	51.6	

^a No. 2½ can.^b Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article	Unit	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927
		1913	1926			1913	1926			1913	1926		
Sirloin steak	Pound	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Round steak	do	23.2	35.9	35.5	36.4	22.0	38.2	37.9	38.0	22.2	33.6	33.1	34.5
Rib roast	do	19.3	33.6	33.9	33.8	20.5	33.7	34.0	34.2	20.0	30.4	29.9	31.2
Chuck roast	do	21.1	26.9	26.5	27.5	18.5	28.3	28.5	28.3	19.0	25.3	26.5	27.8
Plate beef	do	15.5	19.1	19.9	20.0	16.5	24.0	24.5	24.6	15.5	20.3	22.4	23.0
Pork chops	do	12.2	15.5	16.3	16.7	11.5	14.6	14.6	14.6	10.3	12.4	13.5	13.9
Bacon, sliced	do	20.4	36.6	31.9	31.1	19.5	39.8	34.2	33.3	18.4	38.5	33.8	33.5
Ham, sliced	do	30.0	43.3	40.8	42.0	26.8	48.2	47.7	46.7	25.0	49.9	47.7	47.7
Lamb, leg of	do	29.3	53.3	55.0	55.5	27.3	51.7	52.3	51.3	27.5	53.4	54.2	55.4
Hens	do	20.8	40.0	40.0	41.2	20.0	39.6	41.8	42.7	17.0	36.3	36.7	36.4
Salmon, canned, red	do	33.3	33.1	33.1	33.4	32.1	33.3	33.3	33.3	39.5	34.0	34.0	34.0
Milk, fresh	Quart	10.0	15.0	15.0	15.0	7.0	11.0	11.0	11.0	7.0	11.0	11.0	11.0
Milk, evaporated	15-16 oz. can	11.3	11.2	11.3	—	1.2	11.1	11.2	—	11.8	11.6	11.6	11.6
Butter	Pound	38.6	48.1	56.7	52.5	33.5	46.5	57.1	49.5	33.4	45.7	56.0	48.7
Oleomargarine (all butter substitutes)	do	27.7	25.6	25.1	—	27.2	26.3	26.4	—	28.2	25.3	25.5	25.5
Cheese	do	21.3	31.9	33.3	32.8	21.3	33.2	35.3	34.8	19.8	33.5	36.0	35.6
Lard	do	15.5	19.4	15.9	16.2	15.5	21.3	19.0	19.0	15.4	19.9	17.9	17.9
Vegetable lard substitute	do	23.0	19.7	19.3	—	26.5	26.7	26.7	—	27.2	27.2	26.7	26.7
Eggs, strictly fresh	Dozen	22.9	35.7	28.9	29.4	21.3	34.5	28.9	28.5	21.4	35.0	30.3	29.2
Bread	Pound	6.0	9.7	9.5	9.5	5.6	9.0	9.0	9.0	5.6	9.9	9.0	9.0
Flour	do	3.6	6.9	5.9	5.9	3.1	5.6	4.9	4.9	2.9	5.7	5.1	5.1
Corn meal	do	2.0	3.7	3.6	3.7	3.0	5.6	5.6	5.7	2.4	5.6	5.5	5.4
Rolled oats	do	9.4	9.0	9.1	—	8.5	8.4	8.4	—	8.4	8.3	8.2	8.2
Corn flakes	8-oz. pkg.	11.1	10.3	10.0	—	10.3	9.8	9.5	—	10.6	9.9	10.0	10.0
Wheat cereal	28-oz. pkg.	25.7	25.2	25.7	—	24.5	24.4	24.4	—	25.7	25.6	25.6	25.6
Macaroni	Pound	19.5	18.9	18.9	—	18.0	17.5	17.7	—	19.3	18.9	18.8	18.8
Rice	do	7.5	10.8	8.4	8.9	9.0	11.8	10.3	10.4	9.1	11.9	10.9	10.7
Beans, navy	do	9.4	8.7	8.3	—	8.3	8.1	8.0	—	9.1	9.1	9.2	9.2
Potatoes	do	1.6	7.0	4.5	5.3	1.1	5.0	2.6	3.8	1.1	4.9	3.0	3.8
Onions	do	6.3	7.1	7.5	—	8.3	7.5	9.5	—	7.9	7.6	9.2	9.2
Cabbage	do	4.8	4.3	6.8	—	6.0	4.9	9.4	—	5.4	5.0	9.4	9.4
Beans, baked	No. 2 can	11.8	11.2	11.3	—	10.9	11.1	11.0	—	12.9	12.3	12.3	12.3
Corn, canned	do	16.1	14.0	13.8	—	15.5	15.1	15.3	—	14.8	14.5	13.8	13.8
Peas, canned	do	18.1	14.8	14.8	—	16.2	15.6	15.2	—	15.6	14.6	13.9	13.9
Tomatoes, canned	do	10.8	10.0	9.9	—	13.0	13.4	13.4	—	14.2	13.8	13.3	13.3
Sugar, granulated	Pound	5.2	6.9	7.2	7.2	5.3	6.4	7.0	7.1	5.5	6.8	7.5	7.5
Tea	do	63.8	96.7	99.4	99.4	50.0	71.2	70.7	70.7	45.0	62.8	60.0	60.0
Coffee	do	27.5	50.9	47.7	47.8	27.5	47.0	42.5	42.5	30.8	54.0	52.2	51.9
Prunes	do	17.5	14.4	14.0	—	17.2	15.4	14.9	—	17.2	15.5	15.4	15.4
Raisins	do	15.8	14.7	14.5	—	14.8	14.6	14.8	—	15.3	14.8	15.0	15.0
Bananas	Dozen	2.8	2.8	2.8	2.8	2.4	2.9	2.9	2.9	2.9	10.7	11.5	11.3
Oranges	do	52.1	39.4	47.5	—	51.0	47.3	50.2	—	50.9	48.8	46.6	46.6

¹ Whole.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Mobile, Ala.			Newark N. J.			New Haven, Conn.			New Orleans, La.			New York, N. Y.			
May 15, 1926	Apr. 15, 1927	May 15, 1927	May 15—		May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—	
			1913	1926		1913	1926			1913	1926			1913	1926
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
34.6	35.0	34.5	26.8	44.9	46.6	46.2	31.6	53.6	54.3	55.8	22.0	35.8	36.7	36.9	26.3
34.2	34.5	34.1	26.6	41.7	44.8	44.0	28.4	44.1	43.8	44.0	19.0	30.8	32.1	32.2	25.0
26.8	28.6	28.6	21.2	35.3	36.0	23.4	36.1	36.2	37.6	20.0	30.5	31.4	31.1	22.3	38.9
24.2	23.2	22.5	17.6	23.5	25.5	25.0	18.8	26.7	26.3	27.4	15.5	21.4	21.9	21.6	16.3
18.1	18.4	18.0	12.0	13.1	13.3	13.3	—	15.8	15.6	16.0	11.1	16.9	18.2	17.4	14.5
40.8	38.2	38.2	22.6	39.5	37.3	37.5	23.0	39.6	37.2	37.3	22.5	39.8	37.0	34.8	21.8
46.9	48.1	47.7	24.4	46.1	46.2	45.6	28.2	50.2	47.9	48.3	29.8	47.5	50.4	48.1	25.3
51.2	51.9	51.9	20.3	54.8	55.2	55.2	32.4	59.6	60.3	59.8	26.0	52.9	53.3	51.3	29.0
42.1	41.4	41.4	20.8	40.2	39.9	42.0	19.3	40.4	40.0	42.5	20.1	39.6	40.3	40.4	17.6
39.0	37.6	36.8	23.4	41.9	38.1	39.1	23.8	45.6	41.7	42.0	21.1	39.7	38.3	37.2	22.2
41.0	31.6	31.2	—	37.0	30.0	30.0	—	34.7	30.8	30.8	—	37.4	37.7	37.5	—
18.5	17.8	9.0	15.0	15.0	9.0	—	16.0	16.0	16.0	10.0	14.0	14.0	14.0	9.0	15.0
11.7	11.6	11.6	—	11.3	11.1	11.2	—	12.1	12.0	12.1	—	11.1	11.1	11.2	—
53.2	59.8	57.5	36.6	50.8	60.8	54.4	35.8	50.6	60.0	54.9	35.0	49.7	58.9	55.2	35.4
31.6	28.8	29.6	—	30.6	30.7	30.7	—	31.3	31.2	31.0	—	30.3	28.9	29.0	—
35.3	37.0	36.0	24.5	40.2	39.5	39.7	22.0	39.2	39.7	39.3	22.0	33.9	37.0	37.0	19.4
21.5	19.2	19.1	15.8	21.3	19.1	19.1	15.7	21.4	18.4	18.4	14.9	20.9	19.8	19.4	15.7
21.7	20.2	20.4	—	26.1	25.7	25.5	—	25.6	25.6	25.5	—	22.4	19.3	19.2	—
35.3	31.3	30.2	32.8	48.3	42.4	43.0	31.3	47.1	43.9	43.6	23.6	37.1	32.4	32.1	30.8
9.6	10.1	10.1	5.6	9.4	9.6	9.6	6.0	9.1	9.2	9.2	5.2	8.9	8.8	8.8	6.0
6.7	6.2	6.1	3.6	6.1	5.4	5.5	3.2	6.2	5.4	5.4	3.8	7.5	6.7	6.7	3.2
3.9	3.7	3.8	3.6	6.6	6.5	6.4	3.2	6.8	6.7	6.8	2.6	3.9	4.1	4.1	3.4
8.6	8.4	8.5	—	8.4	8.3	8.5	—	9.4	9.1	9.3	—	9.1	9.0	8.9	—
11.3	9.9	9.7	—	10.1	9.7	9.8	—	10.6	10.5	10.2	—	10.4	10.0	10.0	—
25.5	24.8	24.8	—	24.3	24.1	24.1	—	24.9	24.8	24.7	—	24.7	25.0	24.9	—
21.1	20.3	20.9	—	21.1	20.9	20.9	—	22.8	22.0	22.4	—	9.6	10.4	10.4	—
11.2	9.9	10.0	9.0	11.3	10.5	10.6	9.3	12.1	11.1	11.2	7.4	10.1	9.6	9.6	8.0
8.9	8.7	8.4	—	9.8	9.7	9.7	—	9.5	9.2	9.3	—	8.2	8.1	7.9	—
7.2	4.7	5.0	2.4	7.4	4.0	5.2	1.8	5.9	3.4	4.2	1.9	6.2	4.5	4.4	2.5
7.6	7.8	7.3	—	9.5	7.4	9.6	—	8.5	7.2	9.0	—	5.2	6.4	5.2	—
3.9	3.8	4.6	—	7.7	6.2	8.8	—	7.4	6.5	9.7	—	4.5	3.9	4.9	—
10.9	10.4	10.6	—	10.8	10.7	10.8	—	11.5	11.3	11.1	—	10.9	11.0	11.0	—
17.5	17.3	16.6	—	16.4	15.1	15.2	—	18.3	18.1	18.7	—	14.4	15.3	15.3	—
16.2	16.4	15.7	—	17.2	16.0	16.4	—	19.5	19.3	19.2	—	17.2	16.9	16.9	—
10.9	10.8	11.0	—	10.9	11.5	11.5	—	12.3	12.9	12.9	—	10.1	11.4	11.4	—
6.7	7.5	7.4	5.1	6.2	6.7	6.6	5.2	6.5	7.2	7.3	5.1	6.0	6.7	6.8	4.8
81.5	79.2	77.3	53.8	63.5	62.8	62.8	55.0	59.7	58.4	57.4	62.1	82.2	80.0	80.1	43.3
50.3	48.5	48.3	20.3	49.9	47.3	46.5	33.8	53.5	50.7	50.3	26.7	36.3	35.5	35.5	27.5
17.3	14.8	14.3	—	15.8	14.5	14.5	—	16.3	15.7	15.8	—	18.4	16.5	16.7	—
14.5	14.3	14.4	—	14.1	14.3	14.5	—	14.0	14.0	14.2	—	14.4	13.6	13.7	—
25.2	22.8	22.8	—	37.5	37.5	37.5	—	34.6	35.0	33.2	—	17.5	17.1	17.1	—
54.7	42.7	43.0	—	56.3	48.1	51.4	—	57.0	50.5	53.1	—	54.4	47.0	48.0	—

* Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article	Unit	Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
		May 15, 1926	Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15, 1926	Apr. 15, 1927
					1913	1926				
Sirloin steak	Pound	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Round steak	do	41.1	41.2	41.1	25.1	37.1	37.8	38.0	35.2	36.6
Rib roast	do	34.7	34.9	34.9	22.0	34.0	35.1	35.6	33.3	34.8
Chuck roast	do	32.6	32.9	33.4	18.1	26.1	26.1	26.7	24.5	25.6
Plate beef	do	23.1	24.1	23.6	15.6	22.0	22.2	22.8	21.0	21.5
Pork chops	do	16.1	15.4	15.8	10.4	12.7	12.9	13.3	13.8	14.1
Bacon, sliced	do	38.4	36.5	36.7	19.0	37.8	35.1	34.4	37.2	34.4
Ham, sliced	do	46.1	45.7	44.5	28.0	52.4	50.7	50.7	51.1	50.0
Lamb, leg of	do	41.4	42.5	41.3	18.8	38.4	38.5	39.6	39.2	40.0
Hens	do	41.3	38.8	38.2	19.5	35.3	33.4	32.5	36.8	35.6
Salmon, canned, red	do	37.2	33.1	34.2	39.2	35.2	35.1	39.1	34.4	34.3
Milk, fresh	Quart	17.5	18.0	17.5	7.9	10.3	10.3	10.3	11.3	13.0
Milk, evaporated	15-16 oz. can	11.3	11.2	11.4	11.9	11.7	11.8	11.5	11.3	11.1
Butter	Pound	53.0	61.0	57.1	35.0	47.2	55.5	52.1	46.1	56.6
Oleomargarine (all butter substitutes)	do	28.6	38.3	28.3	30.3	26.3	26.3	29.5	28.1	28.2
Cheese	do	33.0	35.2	35.1	22.5	34.2	36.1	36.4	34.7	36.9
Lard	do	21.0	18.8	18.9	17.8	23.9	21.2	20.9	22.0	19.0
Vegetable lard substitute	do	22.0	21.4	21.8	27.8	25.9	26.4	27.4	27.3	27.5
Eggs, strictly fresh	Dozen	38.1	38.3	32.1	22.3	33.3	28.5	27.9	32.4	27.5
Bread	Pound	9.5	9.9	9.9	5.2	10.1	10.1	10.1	10.1	10.0
Flour	do	6.3	5.7	5.7	2.8	5.4	4.6	4.6	5.9	5.3
Corn meal	do	4.4	4.4	4.3	2.3	4.9	4.8	4.7	4.8	4.7
Roasted oats	do	8.3	8.6	8.7	10.3	10.2	10.2	8.9	8.8	8.9
Corn flakes	8-oz. pkg	10.4	9.8	9.8	12.5	11.5	11.1	11.8	10.7	10.4
Wheat cereal	28-oz. pkg	24.0	24.3	24.5	28.3	28.0	28.0	25.4	26.3	26.3
Macaroni	Pound	19.1	19.1	19.1	21.0	21.2	21.2	20.2	18.7	18.7
Rice	do	12.0	11.6	11.6	8.5	11.8	11.0	10.8	12.0	11.6
Beans, navy	do	8.2	8.1	8.1	9.7	9.8	9.6	8.4	8.7	8.5
Potatoes	do	6.6	4.2	5.6	1.3	5.6	3.6	4.4	5.3	3.2
Onions	do	7.3	7.4	8.2	8.9	8.7	9.3	8.4	8.9	0.8
Cabbage	do	6.1	5.0	7.3	5.7	5.0	9.1	6.4	5.8	8.9
Beans, baked	No. 2 can	10.0	9.7	9.7	13.7	13.4	13.3	11.6	11.1	11.1
Corn, canned	do	15.3	14.9	14.9	16.1	16.0	16.1	15.6	15.4	14.9
Peas, canned	do	20.1	19.3	18.9	16.5	15.7	15.5	18.0	17.6	17.6
Tomatoes, canned	do	10.1	9.8	9.9	14.1	13.1	12.8	13.8	12.7	12.6
Sugar, granulated	Pound	6.2	7.0	6.9	5.7	7.1	7.9	7.9	7.4	8.6
Tea	do	88.8	93.2	92.7	56.0	80.3	79.7	78.8	66.4	71.7
Coffee	do	50.3	48.8	48.2	30.0	57.5	53.8	53.6	51.6	49.7
Prunes	do	16.7	16.3	15.3	17.7	16.1	16.6	20.0	18.0	17.9
Raisins	do	14.0	14.3	14.1	15.7	15.6	15.6	14.9	14.5	14.5
Bananas	Dozen	33.3	32.8	32.5	11.4	11.3	11.3	9.9	10.5	10.2
Oranges	do	57.5	48.3	52.5	44.2	47.6	47.1	47.1	54.6	54.1

¹ The steak for which prices are here quoted is called "sirloin" in this city but most of the other cities included in this report it would be known as "porterhouse" steak.

PRICES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

III. ARTI May 15, 1927	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.			Providence, R. I.					
	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	
	1913	1926	1927	1913	1926	1927	1926	1927	1927	1913	1926	1927	1913	1926	1927	1913	1926	
Cs.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
36.8	30.0	54.8	56.3	57.8	27.0	46.6	46.8	47.9	62.2	61.1	63.5	23.5	29.5	31.6	31.3	39.6	72.9	
34.8	25.6	41.4	43.2	43.8	23.3	38.9	38.8	40.0	47.3	47.5	48.6	21.2	26.8	29.0	23.7	30.6	50.3	
25.6	22.3	37.1	37.1	37.3	21.8	34.0	34.4	34.3	30.6	31.6	19.3	25.3	26.6	26.4	23.8	38.7	39.0	
22.1	17.6	24.9	26.5	27.3	16.5	24.2	26.4	26.6	21.4	21.9	22.9	16.9	18.3	20.4	20.3	19.0	28.8	
14.3	11.8	12.4	13.2	13.6	11.9	12.7	13.7	13.5	17.2	18.0	18.5	14.0	13.3	14.9	14.7	18.4	17.8	
32.0	20.8	45.1	40.7	41.4	22.0	43.1	39.5	39.6	41.6	37.1	37.2	21.1	38.8	36.8	35.8	21.8	43.5	
49.6	25.6	47.8	47.3	46.4	28.8	53.9	53.8	53.2	44.8	46.1	44.9	30.0	54.2	54.3	54.6	22.4	44.6	
55.4	30.8	60.1	60.1	60.3	29.4	62.0	61.8	62.6	56.9	56.9	58.2	30.0	56.1	57.2	56.6	31.0	58.8	
40.0	21.4	42.2	42.0	43.7	21.2	41.7	42.4	43.8	41.8	39.8	41.7	19.1	37.4	38.0	38.1	20.3	44.0	
35.2	23.0	44.6	41.6	41.8	27.3	45.3	44.1	43.9	42.1	41.7	42.0	22.0	37.7	36.5	36.3	24.4	45.8	
34.3	38.0	27.8	27.6	37.5	30.5	30.1	39.1	30.4	30.4	37.1	33.2	32.4	37.6	33.0	32.5	42.6	43.5	
13.0	8.0	12.0	13.0	13.0	8.6	13.0	14.0	13.5	13.8	13.8	9.3	12.2	12.0	12.0	9.0	14.7	14.3	
11.1	11.5	11.6	11.6	11.6	11.0	11.2	12.4	12.6	12.5	10.4	10.5	10.6	12.2	12.1	12.1	12.3	12.3	
50.9	40.3	53.3	62.9	57.1	37.2	51.3	61.7	55.0	51.6	60.8	57.6	35.5	47.4	51.9	50.2	36.6	51.1	
28.2	29.9	30.3	28.4	—	—	30.5	31.3	30.4	29.4	28.0	28.0	—	30.3	28.8	28.8	29.7	28.9	
36.4	25.0	39.8	39.9	39.8	24.5	38.2	39.7	40.1	37.9	37.9	37.9	20.5	37.1	36.7	37.1	21.3	36.3	
19.2	15.3	21.1	18.3	18.3	15.5	20.9	19.6	19.3	20.1	18.4	18.3	18.2	23.8	21.6	21.2	15.2	20.6	
27.5	25.5	25.7	25.7	26.6	27.5	27.5	24.4	26.0	25.6	23.0	28.0	28.6	—	26.7	26.9	26.9	18.2	
27.5	26.1	41.8	35.8	35.8	24.1	40.4	35.8	36.4	43.3	39.6	40.4	25.0	32.8	29.1	29.3	30.5	47.2	
10.0	4.8	9.4	9.4	9.4	5.4	9.3	9.1	9.1	10.1	10.0	10.0	5.6	9.4	9.3	9.3	5.9	9.2	
5.3	3.1	6.1	5.3	5.3	3.1	5.9	5.1	5.1	6.1	5.3	5.3	2.9	5.2	5.0	5.0	3.4	6.5	
4.8	2.7	4.7	4.8	4.8	2.7	5.9	6.0	5.9	5.0	5.1	5.1	3.3	5.2	5.6	5.6	2.9	5.1	
8.9	8.6	8.7	8.7	—	—	9.2	9.2	9.2	8.1	7.8	7.8	—	10.2	10.3	10.6	9.2	9.1	
0.4	10.0	9.9	9.8	—	—	10.5	10.3	10.1	11.6	10.9	10.8	—	11.3	10.1	10.1	10.8	10.4	
6.3	24.3	24.7	24.7	—	—	25.3	25.2	25.2	25.8	25.9	25.9	—	26.9	26.7	26.6	24.8	25.1	
8.7	21.0	20.7	21.0	—	—	22.7	23.6	23.5	25.4	24.7	24.7	—	18.0	18.4	18.5	23.5	23.3	
1.4	9.8	12.2	11.3	11.4	9.2	12.2	12.0	11.8	12.8	12.7	12.5	8.6	11.0	10.1	10.3	9.3	11.9	
8.5	8.8	9.0	9.0	—	—	8.0	8.5	8.5	9.4	9.4	9.3	—	9.6	9.6	9.9	9.2	9.4	
4.2	2.3	7.0	4.2	5.6	1.6	5.9	3.4	4.3	5.2	3.1	3.8	0.5	4.4	2.8	3.3	1.7	5.1	
9.9	8.5	6.8	8.6	—	—	8.6	8.5	9.4	7.8	6.6	9.4	—	5.2	6.8	8.8	7.9	6.6	
3.9	7.0	5.9	8.9	—	—	6.5	6.5	9.6	7.4	3.5	8.9	—	5.2	7.0	9.9	6.9	5.8	
1.9	10.6	10.7	10.6	—	—	12.9	12.3	12.3	15.2	15.1	14.4	—	13.9	12.8	12.7	11.2	11.6	
6.6	14.6	14.4	14.2	—	—	17.2	16.0	15.9	16.2	15.8	14.1	—	19.7	19.7	19.2	17.8	17.0	
6.6	14.3	15.1	15.0	—	—	17.6	17.0	16.9	18.3	18.2	17.6	—	19.4	19.2	19.2	19.5	18.3	
6.6	11.0	12.2	12.1	—	—	11.9	12.4	12.5	20.0	12.8	12.7	—	16.9	17.0	17.0	13.3	13.0	
4.9	6.2	6.6	6.7	5.5	6.8	7.4	7.4	6.6	7.2	7.3	6.1	—	7.0	7.1	7.2	6.5	7.0	
50.0	71.9	68.2	68.0	58.0	85.7	84.2	83.0	60.3	62.1	62.1	55.0	76.6	79.6	76.9	48.3	61.5	60.6	
6.6	20.0	44.6	41.2	41.4	30.0	50.9	49.7	49.2	53.4	51.2	50.9	35.0	52.3	51.7	51.3	30.0	54.2	51.0
9.9	14.4	13.3	13.3	—	—	18.9	16.8	16.6	15.6	14.9	14.5	—	14.4	9.9	10.3	16.5	14.6	
2.1	13.7	13.8	13.6	—	—	14.6	14.1	14.2	13.8	13.3	13.3	—	13.8	13.7	13.8	14.2	14.1	
1.1	39.6	32.0	31.4	—	—	39.3	37.2	38.6	10.6	11.0	10.8	—	13.1	12.8	12.5	34.3	32.5	
1.1	58.6	49.5	50.7	—	—	54.2	48.2	49.8	50.9	51.1	53.4	—	51.3	47.8	47.5	61.2	54.7	

^a No. 2½ can.^b Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article	Unit	Richmond, Va.				Rochester, N. Y.				St. Louis, Mo.			
		May 15—		May 15, 1926	Apr. 15, 1927	May 15, 1926	Apr. 15, 1927	May 15, 1926	Apr. 15, 1927	May 15, 1926	Apr. 15, 1927	May 15, 1926	Apr. 15, 1927
		Cts.	Cts.										
Sirloin steak.....	Pound.....	21.8	39.5	40.2	40.1	41.9	40.6	41.2	23.3	36.8	36.6	37.4	31.7
Round steak.....	do.....	19.6	35.2	35.9	35.6	34.9	34.0	34.7	21.0	35.1	35.6	36.4	30.6
Rib roast.....	do.....	18.9	32.1	32.6	32.5	30.9	30.6	30.8	18.0	29.9	30.6	30.6	21.7
Chuck roast.....	do.....	15.3	23.9	23.5	23.8	24.5	24.5	25.2	13.7	20.7	21.6	21.7	13.0
Plate beef.....	do.....	12.4	16.3	17.0	17.0	13.2	13.9	14.0	11.0	13.7	15.0	14.8	13.0
Pork chops.....	do.....	20.8	40.6	36.4	36.7	42.7	39.5	39.7	19.5	37.5	32.6	31.3	28.7
Bacon, sliced.....	do.....	25.0	44.6	44.9	44.3	44.5	43.8	43.7	25.3	46.7	43.5	43.4	33.5
Ham, sliced.....	do.....	25.7	45.1	45.9	45.7	55.4	56.5	54.5	26.7	53.3	53.7	53.5	33.5
Lamb, leg of.....	do.....	19.7	45.8	45.7	46.3	41.1	40.2	41.9	19.0	38.8	39.0	39.4	33.0
Hens.....	do.....	21.0	41.2	38.3	37.3	45.4	42.3	42.0	18.5	39.5	36.7	36.2	33.0
Salmon, canned, red.....	do.....	35.7	33.9	34.1	38.3	36.7	31.5	38.9	33.7	33.7	33.7	33.7	33.7
Milk, fresh.....	Quart.....	10.0	14.0	14.0	14.0	12.5	12.5	12.5	8.0	13.0	13.0	13.0	13.0
Milk, evaporated.....	15-16 oz. can.....	12.7	12.5	12.2	11.6	11.4	11.5	11.5	10.4	10.5	10.9	10.9	10.9
Butter.....	Pound.....	39.0	56.1	62.3	60.2	49.0	58.9	52.6	33.3	50.8	60.8	53.9	44.0
Oleomargarine (all butter substitutes).....	do.....	31.9	31.3	31.6	30.6	29.6	29.4	28.3	27.0	26.7	28.3	28.3	28.3
Cheese.....	do.....	22.3	36.0	36.7	36.5	37.6	36.8	36.5	19.2	32.5	36.3	35.4	31.0
Lard.....	do.....	15.0	21.4	18.3	18.0	20.1	17.9	17.7	13.7	17.8	15.1	15.1	15.1
Vegetable lard substitute.....	do.....	25.9	25.8	25.3	24.1	24.1	24.0	24.0	26.1	25.7	25.7	25.8	25.8
Eggs, strictly fresh.....	Dozen.....	24.0	37.1	30.9	30.2	37.4	30.8	30.9	20.0	35.5	29.7	28.5	28.5
Bread.....	Pound.....	5.3	9.5	9.4	9.4	8.9	9.0	9.0	5.5	9.8	9.9	9.9	9.9
Flour.....	do.....	3.3	6.1	5.5	5.4	5.8	5.3	5.4	3.0	5.7	5.1	5.2	5.2
Corn meal.....	do.....	2.0	4.8	4.6	4.6	6.3	5.6	5.2	2.1	4.3	4.2	4.3	4.3
Rolled oats.....	do.....	9.0	8.7	8.5	9.2	9.2	9.0	9.0	8.8	8.5	8.5	8.4	8.4
Corn flakes.....	8-oz. pkg.....	11.2	10.0	9.8	10.3	9.9	9.8	10.1	9.3	9.2	24.6	24.7	24.7
Wheat cereal.....	28-oz. pkg.....	25.4	25.6	25.6	25.0	25.0	24.5	24.5	24.3	19.9	19.9	19.7	19.7
Macaroni.....	Pound.....	20.4	20.4	20.2	22.3	19.7	19.5	19.5	20.8	19.9	19.9	19.9	19.9
Rice.....	do.....	9.8	13.3	12.1	12.0	10.8	10.4	10.4	8.3	11.1	9.9	10.2	10.2
Beans, navy.....	do.....	9.1	8.6	8.7	9.1	8.6	8.7	8.7	7.4	7.8	7.7	7.7	7.7
Potatoes.....	do.....	1.7	7.7	4.6	5.5	5.7	2.4	4.3	1.3	6.1	4.0	4.9	4.9
Onions.....	do.....	7.8	7.7	8.8	8.2	5.6	8.6	8.6	6.3	7.2	7.2	7.3	7.3
Cabbage.....	do.....	6.9	6.8	8.2	6.7	6.2	7.6	7.6	5.3	4.3	10.1	10.1	10.1
Beans, baked.....	No. 2 can.....	10.1	10.1	10.1	10.5	10.5	10.3	10.3	10.6	10.3	10.2	10.2	10.2
Corn, canned.....	do.....	15.3	15.3	15.1	16.6	15.3	15.0	15.0	16.0	15.4	15.5	15.5	15.5
Peas, canned.....	do.....	20.1	20.0	19.3	18.4	18.4	16.4	16.9	16.9	16.9	15.3	15.3	15.3
Tomatoes, canned.....	do.....	10.0	10.4	10.5	13.8	13.5	12.7	12.7	11.3	11.4	11.3	11.3	11.3
Sugar, granulated.....	Pound.....	5.0	6.5	7.1	7.1	6.2	6.9	6.9	5.2	6.8	7.3	7.2	7.2
Tea.....	do.....	56.0	88.1	92.1	92.7	66.9	69.8	69.8	55.0	73.0	76.7	76.5	76.5
Coffee.....	do.....	26.8	49.6	46.9	47.6	48.1	45.5	43.9	24.3	47.9	46.6	46.6	46.6
Prunes.....	do.....	18.1	15.0	14.9	17.4	16.6	16.6	19.2	18.1	18.1	18.0	18.0	18.0
Raisins.....	do.....	14.4	14.3	14.3	14.2	14.6	14.6	14.6	14.7	14.2	14.2	14.2	14.2
Bananas.....	Dozen.....	36.8	37.5	36.8	38.2	35.0	36.0	36.0	33.5	33.1	31.8	31.8	31.8
Oranges.....	do.....	56.5	45.0	47.5	50.6	49.6	48.1	48.1	48.8	48.3	48.3	48.3	48.3

¹ No. 2½ can.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

St. Paul, Minn.			Salt Lake City, Utah			San Francisco, Calif.			Savannah, Ga.			Scranton, Pa.		
May 15, 1927	Apr. 15, 1927	May 15, 1927	May 15—		May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	May 15—		Apr. 15, 1927	May 15, 1927	
			1913	1926		1913	1926			1913	1926			
1. Ch.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
6. 37.4	36.0	36.2	37.2	22.5	30.0	32.5	33.9	20.3	32.1	33.9	33.5	36.0	36.0	24.3
6. 36.6	31.0	31.4	32.4	20.0	26.9	30.0	31.3	19.0	29.5	31.0	30.7	29.0	28.0	28.5
6. 30.6	29.6	29.7	30.7	19.6	23.6	25.2	26.6	20.7	29.9	31.0	30.7	27.5	28.0	21.0
6. 21.7	23.5	24.1	24.6	15.7	18.2	20.3	20.1	14.6	19.1	20.6	20.0	19.6	19.3	17.0
14.8	13.2	13.9	13.7	11.7	12.8	14.3	14.8	13.3	14.7	16.1	15.5	16.5	15.3	12.1
31.3	38.1	34.1	33.9	23.1	37.5	38.1	36.1	24.0	43.8	43.3	42.0	36.4	33.8	32.5
43.4	49.3	45.9	45.5	30.8	48.1	50.0	48.4	32.8	62.0	59.3	58.8	45.7	44.3	43.3
55.5	50.9	52.8	52.2	29.3	55.8	61.1	59.3	30.0	64.3	64.5	64.8	45.5	46.4	45.5
39.4	35.8	36.9	37.4	19.6	34.0	36.9	39.1	16.7	37.2	39.2	39.1	41.0	40.0	39.0
36.2	35.6	33.1	33.3	21.3	33.9	33.2	32.6	25.2	45.2	43.9	43.3	37.6	35.8	34.8
33.7	36.9	36.3	36.3	—	34.4	35.1	35.1	—	36.5	30.4	30.1	41.3	33.1	33.0
13.0	11.0	11.0	8.7	10.0	10.3	10.3	10.0	14.0	14.0	14.0	17.0	17.3	8.6	12.0
10.9	12.1	11.6	11.9	—	10.6	10.5	10.6	—	10.1	10.1	10.0	11.3	11.3	11.4
53.9	46.4	54.3	47.9	35.6	46.6	52.1	49.7	33.6	50.3	52.7	51.5	53.7	60.1	54.5
26.7	27.6	25.6	25.1	—	29.3	29.2	29.0	—	30.8	30.3	30.4	35.7	33.6	32.1
35.4	33.6	36.0	35.7	23.3	29.9	30.4	30.7	20.0	38.4	39.2	39.1	34.8	36.0	35.2
15.1	20.6	18.3	18.3	19.2	23.9	22.3	22.1	18.3	24.1	23.3	22.8	22.3	18.6	18.4
25.8	27.1	28.1	28.1	—	29.4	29.2	29.2	—	28.1	28.5	28.6	19.5	16.7	16.7
28.5	33.8	29.6	29.4	23.8	30.7	28.8	28.3	24.5	36.4	32.6	32.2	38.7	33.1	32.0
9.9	10.2	10.0	10.0	5.9	9.8	9.7	9.7	5.9	9.8	9.6	9.5	10.6	10.8	5.6
5.2	5.8	5.3	5.3	2.6	4.7	4.0	4.0	3.3	6.0	5.8	5.7	7.0	6.6	6.6
4.3	5.3	5.2	5.2	3.3	5.2	5.5	5.5	3.4	6.3	6.3	6.5	3.5	3.4	7.5
8.4	9.6	10.2	10.2	—	8.9	8.9	8.8	—	9.6	9.8	9.9	8.9	8.6	8.6
9.2	12.1	10.9	10.9	—	12.4	11.4	11.4	—	10.5	10.5	10.1	10.3	9.5	9.6
24.7	26.6	26.4	26.4	—	25.4	25.5	25.5	—	25.3	25.4	25.4	24.4	24.3	24.3
19.7	18.7	18.7	18.7	—	20.4	20.3	20.0	—	14.9	15.5	15.7	18.1	18.0	18.2
10.2	12.1	11.1	10.7	8.2	11.3	9.1	9.0	8.5	11.9	11.4	11.2	10.6	9.7	9.6
7.7	9.3	9.5	9.6	—	9.6	8.9	8.9	—	9.5	9.4	9.5	10.5	9.3	9.2
4.0	5.3	2.8	3.8	1.1	4.0	2.8	4.0	1.4	5.9	3.9	4.3	7.5	4.4	1.5
7.3	7.1	8.4	9.8	—	7.2	5.9	7.7	—	4.7	6.7	7.7	8.0	8.7	8.5
10.1	5.9	5.1	9.1	—	6.1	5.3	9.0	—	—	—	4.8	4.0	4.6	7.4
10.2	13.9	13.9	13.6	—	14.3	13.8	13.5	—	13.5	12.7	12.8	12.3	12.2	12.1
15.5	15.3	14.3	14.0	—	15.9	14.8	14.4	—	18.5	17.9	17.8	16.1	15.4	15.2
15.3	16.1	15.7	15.3	—	16.2	15.8	15.7	—	18.8	17.7	17.9	16.0	17.3	17.0
11.1	14.2	14.3	14.3	—	14.9	13.4	13.6	—	15.3	14.7	14.6	9.7	10.2	10.2
7.2	7.2	7.5	7.5	5.9	7.5	8.1	8.1	5.3	6.6	7.0	7.1	6.7	7.1	5.5
76.5	69.6	66.9	68.7	65.7	87.5	86.5	86.5	50.0	68.6	71.8	71.8	77.4	81.5	52.5
46.6	52.5	51.8	51.9	35.8	56.8	55.4	54.9	32.0	52.6	51.7	52.0	48.7	45.5	45.5
18.0	16.8	15.8	15.7	—	15.7	15.0	14.8	—	15.3	13.1	13.1	16.3	14.0	13.9
14.2	15.8	15.2	15.6	—	14.3	13.6	13.6	—	12.7	13.3	13.1	14.6	14.6	14.5
31.8	10.9	10.7	10.6	—	15.2	12.8	13.1	—	34.4	31.1	30.0	32.3	27.9	28.7
48.6	51.9	47.5	50.7	—	47.6	44.5	45.0	—	49.8	50.7	50.8	49.9	38.7	41.3

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 31 CITIES ON SPECIFIED DATES—Continued

Article	Unit	Seattle, Wash.				Springfield, Ill.				Washington, D. C.			
		May 15—		Apr. 15, 1927	May 15, 1927	May 15, 1926	Apr. 15, 1927	May 15, 1927	May 15, 1926	Apr. 15, 1927	May 15, 1927	May 15, 1926	Apr. 15, 1927
		1913	1926										
Steak, sirloin	Pound	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Round steak	do	23.8	33.8	34.5	35.7	35.4	36.3	37.5	27.5	46.6	46.2	46.5	46.5
Rib roast	do	21.5	29.6	31.1	32.9	34.9	35.8	36.7	23.6	40.1	39.3	40.5	40.5
Chuck roast	do	19.6	27.0	28.9	28.7	24.1	24.8	25.4	21.9	34.8	34.4	33.8	33.8
Plate beef	do	16.8	19.6	21.1	21.7	22.3	22.0	22.5	17.6	24.4	25.0	25.0	25.0
Pork chops	do	21.6	41.0	39.7	38.7	37.2	32.9	31.4	21.1	43.9	39.4	39.6	39.6
Bacon, sliced	do	31.7	57.0	57.7	58.2	47.5	48.3	47.1	26.5	50.0	46.9	46.4	46.4
Ham, sliced	do	30.8	60.2	61.8	62.8	52.1	53.8	53.3	28.0	60.0	58.3	58.2	58.2
Lamb, leg of	do	20.8	33.1	37.3	38.0	40.5	41.1	42.8	20.9	44.6	41.2	45.7	45.7
Hens	do	24.5	36.7	35.4	36.8	36.4	36.1	22.4	45.1	41.5	41.3	41.3	41.3
Salmon, canned, red	do	38.5	35.2	34.9	41.4	36.4	35.6	37.9	30.6	31.3	30.2	30.2	30.2
Milk, fresh	Quart	8.5	12.7	12.0	12.0	12.5	14.4	12.5	8.0	14.0	15.0	15.0	15.0
Milk, evaporated	15-16 oz. can	10.7	10.6	10.7	11.7	11.6	11.8	11.9	12.0	12.0	12.0	12.0	12.0
Butter	Pound	35.0	49.7	53.0	51.2	48.8	57.8	52.1	38.7	53.4	61.5	56.6	56.6
Oleomargarine (all butter substitutes)	do	30.7	28.2	28.2	29.8	28.7	28.2	31.3	30.2	28.7	30.2	28.7	28.7
Cheese	do	21.7	36.3	34.7	34.8	35.6	36.8	36.8	23.5	38.5	40.3	41.9	41.9
Lard	do	17.6	23.9	20.7	21.0	20.6	19.1	18.8	14.8	20.9	17.5	17.4	17.4
Vegetable lard substitute	do	28.7	27.2	26.9	28.0	27.5	27.9	25.1	24.7	24.5	24.7	24.5	24.5
Eggs, strictly fresh	Dozen	25.0	35.3	32.3	32.3	33.1	28.6	28.8	23.9	39.9	34.9	34.7	34.7
Bread	Pound	5.5	9.7	9.7	9.7	10.1	10.1	10.4	5.6	8.1	9.1	9.1	9.1
Flour	do	3.0	5.1	4.9	5.1	6.2	5.6	5.5	3.7	6.6	5.7	5.8	5.8
Corn meal	do	3.0	4.9	5.7	5.5	5.1	4.6	4.7	2.4	5.2	5.1	5.2	5.2
Rolled oats	do	9.0	9.3	8.9	10.0	10.1	10.0	9.2	9.2	9.2	9.2	9.3	9.3
Corn flakes	8-oz. pkg.	11.9	10.5	10.5	11.9	10.8	10.3	10.6	9.8	9.7	9.7	9.7	9.7
Wheat cereal	28-oz. pkg.	27.3	27.4	27.6	26.9	26.9	26.9	24.9	24.1	24.4	24.4	24.4	24.4
Macaroni	Pound	18.3	18.1	18.2	19.1	19.0	19.0	23.8	22.8	22.5	22.5	22.5	22.5
Rice	do	7.7	13.0	12.1	12.0	11.6	10.7	10.9	9.4	13.0	11.6	11.6	11.6
Beans, navy	do	10.4	9.8	9.8	8.6	9.1	8.7	8.6	8.6	8.6	8.6	8.5	8.5
Potatoes	do	1.0	4.8	3.1	3.9	5.8	3.5	4.9	2.1	7.5	4.2	5.4	5.4
Onions	do	—	5.6	7.0	10.2	9.5	9.0	10.4	—	7.8	6.5	8.6	8.6
Cabbage	do	—	7.0	6.6	10.5	6.5	6.2	9.5	—	5.9	5.4	8.8	8.8
Beans, baked	No. 2 can	13.6	12.1	12.1	11.0	10.8	10.6	10.7	10.1	10.1	10.3	10.3	10.3
Corn, canned	do	19.0	17.0	16.0	15.7	15.3	14.9	15.6	15.2	15.2	15.2	15.2	15.2
Peas, canned	do	20.5	19.2	19.2	16.7	16.2	16.2	16.2	16.2	16.7	17.2	16.6	16.6
Tomatoes, canned	do	17.9	17.2	16.7	15.6	13.9	14.0	10.2	10.2	10.2	10.2	10.1	10.1
Sugar, granulated	Pound	5.9	7.0	7.2	7.2	7.4	7.9	8.0	4.9	6.5	6.9	7.1	7.1
Tea	do	50.0	78.3	76.3	76.8	76.1	83.5	82.7	87.5	89.2	92.5	93.2	93.2
Coffee	do	28.0	52.2	49.6	49.5	53.1	51.4	50.6	28.8	48.3	45.3	43.6	43.6
Prunes	do	—	15.3	13.7	13.8	17.4	15.1	15.6	—	18.4	16.1	16.4	16.4
Raisins	do	—	14.6	13.8	13.9	15.3	15.5	15.8	—	14.5	14.3	14.4	14.4
Bananas	Dozen	23.5	11.2	12.0	10.0	9.5	9.2	9.2	—	34.4	33.1	31.6	31.6
Oranges	do	50.5	47.7	47.9	56.5	52.6	52.1	55.8	47.4	49.5	—	—	—

¹ No. 2½ can.² Per pound.

Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food³ in May, 1927, compared with the average cost in the year 1913, in May, 1926, and in April, 1927. For 12 other cities, comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. These percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.⁴

³ For list of articles see note 5, p. 150.⁴ The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN MAY, 1927, COMPARED WITH THE COST IN APRIL, 1927, MAY, 1926, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percent-age increase May, 1927, compared with 1913	Percent-age de-crease May, 1927, com-pared with April, 1927	City	Percent-age in-crease May, 1927, com-pared with 1913	Percent-age de-crease May, 1927, com-pared with May, 1926	Percent-age in-crease May, 1927, com-pared with April, 1927
Atlanta	58.0	4.8	Minneapolis	54.4	4.4	1.9
Baltimore	62.5	4.1	Mobile	4.9	10.7	
Birmingham	53.6	6.1	Newark	50.6	4.1	1.8
Boston	56.4	2.5	New Haven	55.1	3.0	1.6
Bridgeport	—	3.5	New Orleans	51.1	3.7	11.5
Buffalo	59.6	4.5	New York	58.9	4.9	0.6
Butte	—	2.2	Norfolk	2.0	1.3	
Charleston, S. C.	54.9	6.4	Omaha	53.5	3.7	2.0
Chicago	66.6	2.9	Peoria	—	1.3	1.6
Cincinnati	56.5	4.8	Philadelphia	61.4	2.2	2.8
Cleveland	57.0	4.2	Pittsburgh	57.3	2.1	1.2
Columbus	—	2.8	Portland, Me.	—	1.9	2.4
Dallas	50.7	3.1	Portland, Oreg.	38.7	0.9	1.2
Denver	40.9	3.2	Providence	55.8	2.6	1.2
Detroit	64.8	3.2	Richmond	63.2	5.2	1.0
Fall River	52.6	3.6	Rochester	—	4.1	3.1
Houston	—	5.4	St. Louis	60.0	3.5	1.8
Indianapolis	52.4	3.3	St. Paul	—	4.0	2.5
Jacksonville	47.7	7.0	Salt Lake City	36.1	1.6	2.7
Kansas City	51.4	4.9	San Francisco	48.7	3.1	0.0
Little Rock	47.5	4.5	Savannah	—	7.0	10.9
Los Angeles	40.5	4.0	Scranton	60.5	3.8	1.1
Louisville	51.7	4.7	Seattle	47.0	1.2	2.7
Manchester	52.3	1.7	Springfield, Ill.	—	2.2	1.3
Memphis	45.9	5.5	Washington, D. C.	62.8	4.1	1.7
Milwaukee	56.6	4.5				

¹ Decrease.² Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of May 99.4 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 45 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Boston, Bridgeport, Buffalo, Butte, Charleston, S. C., Cincinnati, Cleveland, Columbus, Dallas, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New York, Norfolk, Peoria, Philadelphia, Pittsburgh, Portland, Me., Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, Seattle, Springfield, Ill., and Washington, D. C.

The following summary shows the promptness with which the merchants responded in May, 1927:

RETAIL PRICE REPORTS RECEIVED FOR MAY, 1927

Item	United States	Geographical division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received	99.4	100.0	100.0	99.2	99.4	98.0
Number of cities in each section from which every report was received	45	14	8	11	7	6

Retail Prices of Coal in the United States^a

THE following table shows the average retail prices of coal on January 15 and July 15, 1913, May 15, 1926, and April 15 and May 15, 1927, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, MAY 15, 1926, AND APRIL 15 AND MAY 15, 1927

City, and kind of coal	1913		1926 May 15	1927		
	Jan. 15	July 15		Apr. 15	May 15	
United States:						
Pennsylvania anthracite—						
Stove—						
Average price.....	\$7.99	\$7.46	\$15.41	\$14.94	\$14.88	
Index (1913=100).....	103.4	96.6	199.5	193.4	192.6	
Chestnut—						
Average price.....	\$8.15	\$7.68	\$15.18	\$14.61	\$14.53	
Index (1913=100).....	103.6	97.0	191.8	184.6	183.6	
Bituminous—						
Average price.....	\$5.48	\$5.39	\$8.76	\$8.95	\$8.88	
Index (1913=100).....	100.8	99.2	161.2	164.7	163.4	
Atlanta, Ga.: Bituminous.....	\$5.88	\$4.83	\$7.37	\$7.37	\$7.35	
Baltimore, Md.: Pennsylvania anthracite—						
Stove.....	17.70	17.24	16.00	15.25	15.25	
Chestnut.....	17.93	17.49	15.50	14.50	14.50	
Bituminous.....			7.71	8.18	8.18	
Birmingham, Ala.: Bituminous.....	4.22	4.01	7.05	6.98	6.98	
Boston, Mass.: Pennsylvania anthracite—						
Stove.....	8.25	7.50	16.00	15.75	15.75	
Chestnut.....	8.25	7.75	15.75	15.50	15.50	
Bridgeport, Conn.: Pennsylvania anthracite—						
Stove.....			15.00	14.63	14.50	
Chestnut.....			15.00	14.63	14.50	
Buffalo, N. Y.: Pennsylvania anthracite—						
Stove.....	6.75	6.54	13.75	13.42	13.44	
Chestnut.....	6.99	6.80	13.39	13.02	13.04	
Butte, Mont.: Bituminous.....			11.07	10.93	10.95	
Charleston, S. C.: Bituminous.....	16.75	16.75	11.00	11.00	11.00	
Chicago, Ill.: Pennsylvania anthracite—						
Stove.....	8.00	7.80	16.84	16.25	16.25	
Chestnut.....	8.25	8.05	16.67	15.75	15.75	
Bituminous.....	4.97	4.65	8.12	8.89	8.98	
Cincinnati, Ohio: Bituminous.....	3.50	3.38	6.56	6.83	7.13	
Cleveland, Ohio: Pennsylvania anthracite—						
Stove.....	7.50	7.25	14.75	15.00	15.00	
Chestnut.....	7.75	7.50	14.75	14.50	14.50	
Bituminous.....	4.14	4.14	8.57	8.66	8.77	

^a Per ton of 2,240 pounds.

* Prices of coal were formerly secured semiannually and published in the March and September issues. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, MAY 15, 1926, AND APRIL 15 AND MAY 15, 1927—
Continued

City, and kind of coal	1913		1926 May 15	1927	
	Jan. 15	July 15		Apr. 15	May 15
Columbus, Ohio:					
Bituminous			\$6.59	\$6.67	\$6.93
Dallas, Tex.:					
Arkansas anthracite—					
Egg			15.17	16.00	14.67
Bituminous	\$8.25	\$7.21	11.72	13.00	12.50
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	8.88	9.00	15.50	15.80	15.60
Stove, 3 and 5 mixed	8.50	8.50	15.56	16.15	15.80
Bituminous	5.25	4.88	9.19	9.08	9.14
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove	8.00	7.45	16.00	15.83	15.00
Chestnut	8.25	7.65	15.50	15.33	14.50
Bituminous	5.20	5.20	9.33	9.57	9.41
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.43	16.75	16.25	16.25
Chestnut	8.25	7.61	16.25	15.75	15.75
Houston, Tex.:					
Bituminous			11.50	11.40	11.40
Indianapolis, Ind.:					
Bituminous	3.81	3.70	6.56	6.84	6.93
Jacksonville, Fla.:					
Bituminous	7.50	7.00	13.00	14.00	12.00
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace			13.50	12.90	12.90
Stove No. 4			16.33	14.67	14.67
Bituminous	4.39	3.94	7.84	7.65	7.65
Little Rock, Ark.:					
Arkansas anthracite—					
Egg					
Bituminous	6.00	5.33	10.00	10.70	10.68
Los Angeles, Calif.:					
Bituminous	13.52	12.50	15.31	16.50	16.50
Louisville, Ky.:					
Bituminous	4.20	4.00	6.33	6.07	6.11
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove	10.00	8.50	17.00	16.50	16.50
Chestnut	10.00	8.50	17.00	16.25	16.25
Memphis, Tenn.:					
Bituminous	4.34	4.22	6.75	8.72	8.75
Milwaukee, Wis.:					
Pennsylvania anthracite—					
Stove	8.00	7.85	16.80	16.15	16.15
Chestnut	8.25	8.10	16.65	15.70	15.70
Bituminous	6.25	5.71	9.43	9.23	8.97
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove	9.25	9.05	18.10	17.65	17.65
Chestnut	9.50	9.30	17.98	17.20	17.20
Bituminous	5.89	5.79	11.09	10.91	11.08
Mobile, Ala.:					
Bituminous			9.23	9.19	9.35
Newark, N. J.:					
Pennsylvania anthracite—					
Stove	6.50	6.25	14.00	13.50	13.45
Chestnut	6.75	6.50	13.50	13.00	13.00
New Haven, Conn.:					
Pennsylvania anthracite—					
Stove	7.50	6.25	15.05	14.65	14.65
Chestnut	7.50	6.25	15.05	14.65	14.65
New Orleans, La.:					
Bituminous	6.06	6.06	9.32	10.00	9.32
New York, N. Y.:					
Pennsylvania anthracite—					
Stove	7.07	6.66	14.75	13.75	13.83
Chestnut	7.14	6.80	14.50	13.50	13.54
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove			15.50	14.00	14.00
Chestnut			15.50	14.00	14.00
Bituminous			8.46	8.27	8.27

* Per 10-barrel lot (1,800 pounds).

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, MAY 15, 1926, AND APRIL 15 AND MAY 15, 1927—
Continued

City, and kind of coal	1913		1926 May 15	1927	
	Jan. 15	July 15		Apr. 15	May 15
Omaha, Nebr.:					
Bituminous	\$6.63	\$6.13	\$9.46	\$10.18	\$9.66
Peoria, Ill.:					
Bituminous			6.93	7.09	7.04
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove	17.16	16.89	15.79	14.75	14.75
Chestnut	17.38	17.14	15.54	14.25	14.25
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Chestnut	18.00	17.44	15.25	15.50	15.00
Bituminous	3.16	3.18	6.13	6.24	6.17
Portland, Me.:					
Pennsylvania anthracite—					
Stove			16.56	16.56	16.33
Chestnut			16.56	16.56	16.33
Portland, Oreg.:					
Bituminous	9.79	9.66	12.27	13.31	12.58
Providence, R. I.:					
Pennsylvania anthracite—					
Stove	8.25	7.50	16.25	15.75	15.75
Chestnut	8.25	7.75	16.00	15.50	15.50
Richmond, Va.:					
Pennsylvania anthracite—					
Stove	8.00	7.25	15.50	16.00	15.00
Chestnut	8.00	7.25	15.00	16.00	15.00
Bituminous	5.50	4.94	8.68	10.04	9.17
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove			14.60	14.10	14.10
Chestnut			14.15	13.65	13.55
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove	8.44	7.74	16.70	16.40	16.50
Chestnut	8.68	7.99	16.45	16.10	16.05
Bituminous	3.36	3.04	5.87	7.31	7.19
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove	9.20	9.05	18.10	17.65	17.65
Chestnut	9.45	9.30	18.04	17.20	17.20
Bituminous	6.07	6.04	11.32	11.10	11.31
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	11.00	11.50	18.00	18.00	18.00
Stove, 3 and 5 mixed	11.00	11.50	18.00	18.00	18.00
Bituminous	5.64	5.46	8.43	8.45	8.19
San Francisco, Calif.:					
New Mexico anthracite—					
Cerillos egg	17.00	17.00	25.00	26.25	25.00
Colorado anthracite—					
Egg	17.00	17.00	24.50	25.75	24.50
Bituminous	12.00	12.00	16.22	16.90	15.60
Savannah, Ga.:					
Bituminous					
Seranton, Pa.:					
Pennsylvania anthracite—					
Stove	4.25	4.31	10.92	10.25	10.28
Chestnut	4.50	4.56	10.67	10.00	10.08
Seattle, Wash.:					
Bituminous	7.63	7.70	8.21	10.47	10.35
Springfield, Ill.:					
Bituminous			4.38	4.47	4.44
Washington, D. C.:					
Pennsylvania anthracite—					
Stove	17.50	17.38	15.53	14.90	14.99
Chestnut	17.65	17.53	15.22	14.48	14.48
Bituminous					
Prepared sizes, low volatile			11.08	10.33	10.33
Prepared sizes, high volatile			9.00	8.75	8.09
Run of mine, mixed			7.75	7.78	7.78

¹ Per ton of 2,240 pounds.² Per 25-bushel lot (1,900 pounds).³ 50 cents per ton additional is charged for "binning." Most customers require binning or basketing the coal into the cellar.⁴ All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above prices.

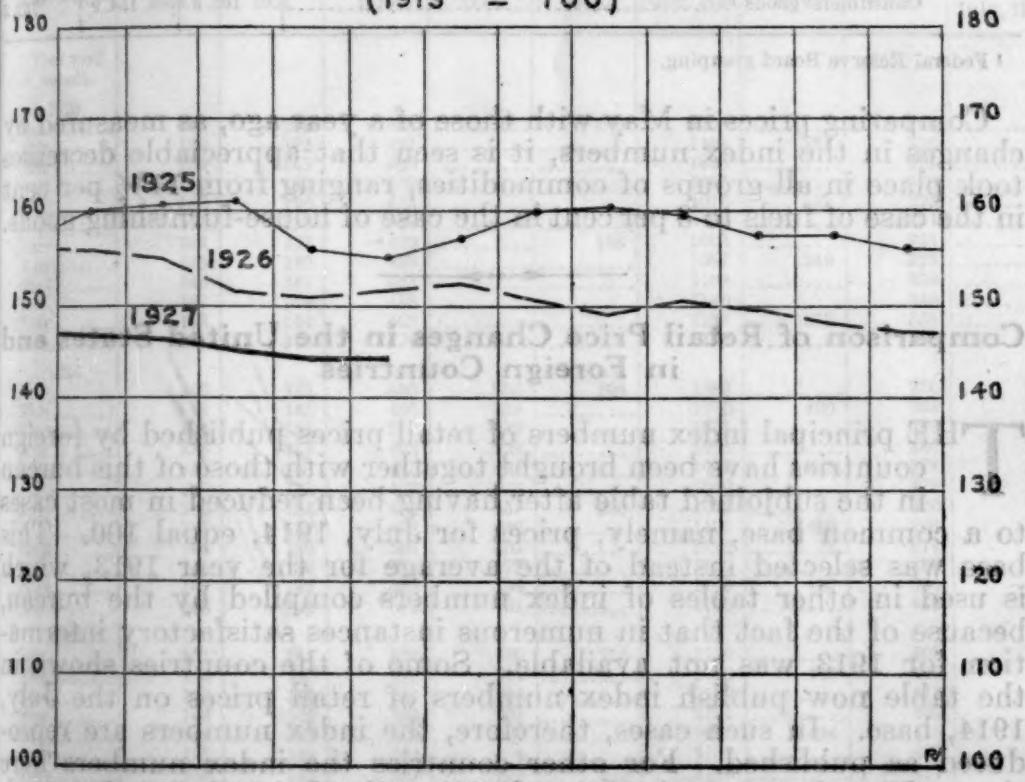
Index Numbers of Wholesale Prices in May, 1927

PRACTICALLY no change in the general level of wholesale prices from April to May is shown by information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number, which includes 404 commodities or price series, registered 144.1 for May compared with 144.2 for April, a decline of less than one-tenth of 1 per cent. Compared with May, 1926, with an index number of 151.7, there was a decrease of 5 per cent.

Slight increases are shown for the groups of farm products, foods, and clothing materials, due to advances in grains, cotton, hides,

TREND OF WHOLESALE PRICES.

(1913 = 100)



JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

onions, potatoes, flour, corn meal, apples, lemons, oranges, sugar, and cotton goods. Certain articles in these groups, as cattle, hogs, sheep, eggs, wool, pork products, and butter, were cheaper than in the month before. Increases were recorded for building materials and miscellaneous commodities, while fuels and metals declined in average price.

Of the 404 commodities or price series for which comparable information for April and May was collected, increases were shown in 108 instances and decreases in 127 instances. In 169 instances no change in price was reported.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS OF COMMODITIES

[1913=100.0]

Commodity group	May, 1926	1927	
		April	May
Farm products	144.2	136.7	137.4
Foods	153.8	147.3	148.0
Clothing materials	176.1	169.1	169.6
Fuels	178.7	160.6	158.2
Metals and metal products	125.2	121.9	120.6
Building materials	171.6	165.0	165.6
Chemicals and drugs	130.7	121.8	121.9
House-furnishing goods	162.2	157.4	157.4
Miscellaneous	124.7	118.5	120.2
All commodities	151.7	144.2	144.1
Raw materials	153.5	146.9	146.3
Producers' goods ¹	128.5	120.3	120.5
Consumers' goods ¹	163.3	154.9	152.3

¹ Federal Reserve Board grouping.

Comparing prices in May with those of a year ago, as measured by changes in the index numbers, it is seen that appreciable decreases took place in all groups of commodities, ranging from 11½ per cent in the case of fuels to 3 per cent in the case of house-furnishing goods.

Comparison of Retail Price Changes in the United States and in Foreign Countries

THE principal index numbers of retail prices published by foreign countries have been brought together with those of this bureau in the subjoined table after having been reduced in most cases to a common base, namely, prices for July, 1914, equal 100. This base was selected instead of the average for the year 1913, which is used in other tables of index numbers compiled by the bureau, because of the fact that in numerous instances satisfactory information for 1913 was not available. Some of the countries shown in the table now publish index numbers of retail prices on the July, 1914, base. In such cases, therefore, the index numbers are reproduced as published. For other countries the index numbers here shown have been obtained by dividing the index for each month specified in the table by the index for July, 1914, or the nearest period thereto as published in the original sources. As stated in the table, the number of articles included in the index numbers for the different countries differs widely. These results, which are designed merely to show price trends and not actual differences in the several countries, should not, therefore, be considered as closely comparable with one another. In certain instances, also, the figures are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities and the localities included on successive dates.

COMPARISON OF RETAIL PRICE CHANGES

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INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND IN OTHER COUNTRIES

Country--	United States	Canada	Belgium	Czecho-slovakia	Denmark	Finland	France (except Paris)	France (Paris)	Germany
Number of localities--	51	60	59	Entire country	100	21	320	1	71
Commodities included--	43 foods	29 foods	56 (foods, etc.)	29 foods	Foods	36 foods	13 (11 foods)	13 (11 foods)	Foods
Computing agency--	Bureau of Labor Statistics	Department of Labor	Ministry of Industry and Labor	Office of Statistics	Government Statistical Department	Central Bureau of Statistics	Ministry of Labor	Ministry of Labor	Federal Statistical Bureau
Base=100--	July, 1914	July, 1914	April, 1914	July, 1914	July, 1914	January-June, 1914	August, 1914	July, 1914	October, 1913-July, 1914
Year and month									
1923									
Jan.	141	142	383		180	1108		300	
Feb.	139	142	397			1103	331	316	
Mar.	139	145	408			1096		321	
Apr.	140	143	409			1047		320	
May	140	140	413			1016	337	325	
June	141	138	419			1004		331	
July	144	137	429		188	1003		321	
Aug.	143	142	439			1057	349	328	
Sept.	146	141	453			1103		339	
Oct.	147	144	458			1140		349	
Nov.	148	144	463			1133	373	355	
Dec.	147	145	470			1112		365	
1924									
Jan.	146	145	480	836	194	1089		376	127
Feb.	144	145	495	838		1070	400	384	117
Mar.	141	143	510	830		1067		392	120
Apr.	138	137	498	829		1035		380	123
May	138	133	485	825		1037	393	378	126
June	139	133	492	833		1040		370	120
July	140	134	493	837	200	1052		360	126
Aug.	141	137	498	842		1125	400	366	122
Sept.	144	139	503	853		1125		374	125
Oct.	145	139	513	877		1156		383	134
Nov.	147	141	520	889		1160	426	396	135
Dec.	148	143	521	891		1160		404	135
1925									
Jan.	151	145	521	899	215	1130		408	137
Feb.	148	147	517	911		1120	440	410	145
Mar.	148	145	511	904		1152		415	146
Apr.	148	142	506	901		1137		409	144
May	148	141	502	894		1097	434	418	141
June	152	141	505	914		1101		422	146
July	156	141	509	916	210	1145		421	154
Aug.	157	146	517	894		1222	451	423	154
Sept.	156	146	525	884		1187		431	153
Oct.	158	147	533	875		1165		433	151
Nov.	164	151	534	863		1164	471	444	147
Dec.	162	156	534	866		1138		463	146
1926									
Jan.	161	157	527	854	177	1090		480	143
Feb.	158	155	526	845		1106	503	495	142
Mar.	156	154	521	832		1100		497	141
Apr.	159	153	529	832		1085		503	142
May	158	152	558	837		1078	523	522	142
June	156	149	579	861		1090		544	143
July	154	149	637	876	159	1105		574	145
Aug.	152	150	631	878		1153	610	587	146
Sept.	155	147	684	878		1137		590	145
Oct.	157	147	705	888		1120		624	145
Nov.	158	148	730	902		1114	647	628	148
Dec.	158	151	741	912		1110		599	150
1927									
Jan.	156	153	755	914	156	1092		592	151
Feb.	153	151	770	914		1095	586	585	152
Mar.	150	149	771	915		1055		581	151

INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND IN OTHER COUNTRIES—Continued

Country	Italy	Netherlands	Norway	Sweden	Switzerland	United Kingdom	South Africa	India (Bombay)	Australia	New Zealand
Number of localities	47	6	31	49	33	630	9	1	30	25
Commodities included	20 foods and charcoal	29 (27 foods)	Foods	50 (43 foods, 7 fuel and light)	Foods	21 foods	24 foods	17 foods	46 foods and groceries	59 foods
Computing agency	Ministry of National Economy	Central Bureau of Statistics	Central Bureau of Statistics	Social Board	Labor Office (revised)	Ministry of Labor	Office of Census and Statistics	Labor Office (revised)	Bureau of Census and Statistics	Census and Statistics Office
Base=100	1913	January-June, 1914	July, 1914	July, 1914	July, 1914	July, 1914	1914	July, 1914	July, 1914	July, 1914
Year and month										
1923										
Jan.	542	148	214	166	160	175	117	151	145	139
Feb.	527	149	214	165	158	173	117	150	144	140
Mar.	524	149	214	166	159	171	117	149	145	141
Apr.	530	149	212	163	161	168	117	150	152	142
May	535	147	214	161	164	162	118	148	156	143
June	532	145	213	161	166	160	118	146	162	142
July	518	145	218	160	166	162	116	148	164	142
Aug.	512	143	220	161	166	165	115	149	165	143
Sept.	514	142	218	165	167	168	115	149	161	145
Oct.	517	145	217	165	167	172	117	147	157	146
Nov.	526	149	221	164	171	173	120	147	157	147
Dec.	528	149	226	164	172	176	118	152	166	147
1924										
Jan.	527	150	230	163	173	175	120	154	155	150
Feb.	529	151	234	162	172	177	122	151	153	149
Mar.	523	152	241	162	171	176	122	147	152	150
Apr.	527	152	240	159	169	167	122	143	160	150
May	530	151	241	159	169	163	122	143	151	150
June	543	151	240	158	170	160	120	147	149	150
July	538	150	248	159	170	162	117	151	148	148
Aug.	534	150	257	163	170	164	117	156	147	146
Sept.	538	152	261	165	170	166	117	156	146	145
Oct.	556	154	264	172	174	172	120	156	146	145
Nov.	583	156	269	172	175	179	122	157	147	148
Dec.	601	157	274	172	175	180	121	156	148	150
1925										
Jan.	609	156	277	170	172	178	120	152	148	147
Feb.	609	157	283	170	172	176	120	152	149	146
Mar.	610	157	284	171	171	176	121	155	151	149
Apr.	606	155	276	170	169	170	124	153	152	149
May	600	154	265	169	168	167	123	151	154	150
June	602	152	261	169	169	166	122	149	155	149
July	605	152	260	169	169	167	120	152	156	151
Aug.	619	152	254	170	169	168	119	147	156	152
Sept.	642	152	241	168	170	170	118	146	156	153
Oct.	645	149	228	166	168	172	119	148	157	153
Nov.	652	149	223	165	168	172	117	149	156	156
Dec.	653	148	221	164	167	174	116	151	155	154
1926										
Jan.	658	148	216	162	165	171	116	151	155	154
Feb.	649	147	212	160	163	168	117	150	154	153
Mar.	636	147	205	159	161	165	118	151	159	152
Apr.	633	146	198	158	161	159	119	150	163	151
May	643	146	195	157	159	158	119	150	163	151
June	647	146	194	157	159	158	118	152	162	151
July	645	146	198	156	159	161	117	155	159	149
Aug.	648	146	196	156	157	161	117	153	157	150
Sept.	656	149	193	157	158	162	117	152	155	148
Oct.	662	148	191	157	160	163	120	153	153	147
Nov.	655	148	186	158	159	169	119	152	155	146
Dec.	622	146	184	157	159	160	117	154	158	149
1927										
Jan.	629	147	180	156	168	167	116	155	158	148
Feb.	615	146	177	153	157	164	117	152	153	146
Mar.	610	146	173	151	156	162	118	153	152	146

Retail Prices in Rio de Janeiro, 1922 to 1926

A REPORT from the American consul, Digby A. Willson, at Rio de Janeiro, Brazil, dated April 30, 1927, contains the following table showing the average retail prices of specified food articles in the capital of Brazil for the five-year period from 1922 to 1926:

AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES IN RIO DE JANEIRO,
1922 TO 1926

[Average exchange rates of the milreis for 1922, 1923, 1924, 1925, and 1926=12.95, 10.23, 10.94, 12.20, and 14.44 cents, respectively; 1 kilogram=2.2 pounds; 1 liter=1.06 quarts; 100 grams=3.5 ounces]

Article	Unit	1922	1923	1924	1925	1926	1926 price equivalents in United States currency
Rice	Kilogram	0.90-1.00	0.90-1.00	1.00-1.70	1.60-1.90	1.20-1.50	17.3-21.7
Sugar	do	.80-1.00	1.00-1.70	1.30-1.80	1.20-1.50	1.00-1.30	14.4-18.8
Olive oil	do	7.00-8.00	7.00-8.00	8.00	7.00-8.00	5.80-7.50	83.8-108.8
Codfish	do	3.00-3.50	2.80-3.20	3.00-3.80	3.00-4.60	2.00-3.00	28.9-43.3
Lard	do	2.10-2.40	2.20-3.00	3.00-4.20	5.00-7.50	3.00-4.60	45.3-66.4
Potatoes	do	.66-.70	.66-.86	.70-1.00	.80-1.20	.70-.90	10.1-13.9
Coffee	do	2.00-2.80	3.00-3.50	3.50-5.80	4.80-6.00	4.20-4.40	60.6-63.5
Meat, fresh	do	1.20	2.40-3.00	1.40-1.70	1.70-1.80	1.80	26.0
Beef, dried	do	2.40-2.60	1.40-1.60	3.00-3.70	3.60-4.00	2.50-3.40	36.1-49.1
Onions	do	1.00-1.40	1.20-2.20	1.30-1.60	1.20-1.80	.80-2.20	11.0-31.8
Tea, Lipton's	100 grams	2.60-2.80	2.70-3.60	3.60	3.30-3.60	2.60-3.40	37.5-49.1
Flour, mandioca	Kilogram	.50	.50-.70	.70-.90	.90-1.00	.50-.80	7.2-11.6
Flour, wheat	do	1.20	1.20-1.30	1.30-1.40	1.30-1.50	1.20-1.40	17.3-20.2
Beans, black	do	.66-.70	.70-.80	.80-2.20	1.00-2.00	.60-.80	8.7-11.6
Milk, condensed, foreign	Cau	2.20-2.50	2.40-3.20	2.40-3.40	2.80-3.30	2.80-3.20	40.4-46.2
Milk, condensed, Brazilian	do	1.60-1.70	1.60-1.80	1.80-2.20	1.80-2.00	1.80-2.20	26.0-31.8
Milk, fresh	Liter	.90	.80	.80-1.00	.70-1.00	.80-1.00	11.6-14.4
Butter	Kilogram	5.80-7.60	7.00-8.80	8.80-14.00	6.00-13.00	6.00-12.00	86.8-173.8
Corn	do	.34-.40	.34-.50	.50-.80	.50-.80	.30-.60	4.3-8.7
Bread	do	1.10-1.30	1.10-1.40	1.20-1.40	1.20-1.30	1.00-1.40	14.4-20.2
Salt, fine	2 kilograms	1.20-1.40	1.30-1.60	1.20-1.60	1.00-1.20	1.00-1.40	14.4-20.2
Salt, rock	Kilogram	.20-.24	.20	.30-.40	.30	.30	4.3
Bacon	do	2.00-2.20	2.00-2.40	2.40-4.00	4.40-7.00	3.00-4.00	43.3-57.8

LABOR AGREEMENTS, AWARDS, AND DECISIONS

Labor Agreements

Hotel and Restaurant Employees—Vallejo, Calif.

THE agreement effective January 1, 1927, between the Culinary Workers' Union No. 560 and the restaurant and café proprietors of Vallejo, Calif., contains the following articles relative to duties of members and relief work:

ARTICLE 5. Any member of Culinary Workers' Union, Local No. 560, who fails to appear for work at the appointed time, who has not given at least 8 hours' notice, or has not provided a proper and capable substitute, shall be fined one day's pay.

ART. 9. Cooks, waiters, and waitresses shall not do porter work. (This clause covers the preparation of vegetables, fruits, and berries for service, the cleaning of coffee urns, sweeping, scrubbing, etc.) This work belongs to the dishwashers and miscellaneous help, where there is no regular porter employed.

ART. 10. (a) All relief work shall be paid at the rate of pay of the one relieved except where permanent relief is employed at a fixed salary.

(b) When a relief employee fails to report for duty, and the employer is unable to fill said relief position, the regular employee shall substitute for that day.

(c) There shall be no relief work on Sundays and holidays.

(d) Any employees not taking their day off, when relief can be obtained, will be fined one day's pay.

Awards and Decisions

Stereotypers—Buffalo, N. Y.

ON THE expiration of a three-year agreement between Stereotypers' Local Union No. 25 and the Buffalo newspaper publishers the union demanded an increase in wages of $66\frac{2}{3}$ cents per day for journeymen, 75 cents for assistant foremen, \$1 for foremen and for crews who get out seven daily editions of a paper each week. The controversy was laid before Judge Philip Laing as arbitrator, December 6, 1926. After examining the newspaper plants and hearing and reading the briefs presented by each side the arbitrator delivered his written opinion on the 28th of the same month. He considered the various propositions under different heads, discussing and disposing of them separately. The only argument to which he gave much attention was the increase in the cost of living argument. Extracts from his statement on this subject follow:

In a large and growing city like this there is ever something additional to pay out, if one is to keep up with the procession. Things unknown two years ago are necessities to-day, and necessities which cost money. This statement applies to the whole family and to each member of the family. Irrespective of any changes in the cost of food, clothing, rents or heat, I am of opinion that the ordinary man in the city of Buffalo will not be able to get through the year 1927 with the same money that he got through the year of 1923. If that statement

is correct, some provision ought to be made in this controversy, providing to some extent for the cost of better living which the stereotypers must meet as time goes on. I am aware that any allowance made for the reasons now under consideration must be conservative. I am also aware that extravagant people crave every new thing that comes along and call every such thing a necessity. I think, however, it is a fact that the most conservative and economical individuals must, if they keep up with the times, continually incur some additional expense for better living and better living conditions.

What additional allowance should be made to the stereotypers to meet better living conditions? The publishers make answer to this question by saying that the cost of living is not what it was a few years ago, and that that cost is now going back, and for these reasons the stereotypers are in a better position than they were three years ago when the existing scale became effective.

In the monthly bulletin issued by the United States Department of Labor in September, 1926, * * * is a table showing the average retail prices of 42 articles of food in the United States from July 15, 1913, to July 15, 1926, and the percentage each July 15, compared with July 15, 1913, the percentage for July 15, 1913, being arbitrarily fixed at 100, according to this table, the average retail prices for these 42 articles of food * * * on July 15, 1923, [were] 47.8 per cent [more than in 1913]; on July 15, 1924, 43.9 per cent; on July 15, 1925, 60.5 per cent; on July 15, 1926, 57.7 per cent. It thus appears that in 1924 the percentage was less than in 1923, but in 1925 and 1926 the percentage was quite a little more than it was in 1923. The chart contained in the same bulletin at page 153 bears out the foregoing facts.

I am of opinion, however, that during the next two or three years the stereotypers may expect to get some benefit from decreased cost of living, and that that prospect ought to be taken into consideration in connection with the allowance for increased cost of better living.

I come back to the question, "what allowance should be made to the stereotypers for the increased cost of better living?" and I add to that question the other question, "what offset should be made because of the prospect of a decrease in prices of things that make up the necessities of life?" The figures I am about to present are, in a sense, arbitrarily made, but they represent my judgment.

I am of opinion that the stereotypers should be allowed for the increased cost of better living $1\frac{1}{2}$ per cent per year for the last three years, making $4\frac{1}{2}$ per cent, and that there should be deducted from that amount 1 per cent to represent the decreased cost and prospective decreased cost of the things that make up the necessities of life. These figures mean that there should be added to the scale of wages provided for in the existing contract, excepting the foremen, $3\frac{1}{2}$ per cent.

I am of opinion that the foremen should get \$9.50 instead of \$9; the assistant foremen, days, now getting \$7.75, with a $3\frac{1}{2}$ per cent increase would get \$8.02; the assistant foremen, nights, now getting \$8.25, with a $3\frac{1}{2}$ per cent increase, would get \$8.54; the journeymen, days, now getting \$7.50, with a $3\frac{1}{2}$ per cent increase, would get \$7.76; the journeymen, nights, now getting \$8 with a $3\frac{1}{2}$ per cent increase, would get \$8.28.

Railroad Engineers and Firemen—Boston & Maine Railroad

THE Boston & Maine Railroad and its engineers and firemen submitted to a board of arbitrators, consisting of D. S. Brigham, S. H. Huff, and James Jackson, the following question:

Since July, 1900, the engineers and firemen employed on the Fitchburg-Berkshire division have been operating between Boston and Greenfield, Mass., and between Greenfield, Mass. and Troy, N. Y. The management proposes, effective November 29, 1926, to run these engineers and firemen from Boston, Mass., over the Fitchburg-Berkshire division to Troy, N. Y., a distance of 192 miles, which method of operation has been strenuously opposed by the engineers and firemen.

The decision of the board in part was as follows:

The board agreed that this question should be decided on the merits of the testimony offered and that no research of any character would be required.

In the opinion of the majority of the board, the point at issue has resolved itself to one question:

"Do the runs instituted by the management of the Boston & Maine Railroad between Boston, Mass., and Troy, N. Y., cause an excessive strain or unreasonable hardship on the engineers and firemen on those runs?"

The chairman of the board, in order to get some first-hand information, personally took the trip on the slow mail train leaving Boston at 3 a. m. and arriving at Troy at 11.40 a. m. and returned the same day on the Minute Man, the fastest express train on this line, due to leave Troy at 2.35 p. m., arriving Boston at 7.25 p. m.

The board has sat in executive session and weighed the evidence offered on this particular case, and a majority of the board renders its award in favor of the Boston & Maine Railroad, effective this date.

Railroad Station Employees—Boston & Maine Railroad Co.

MANY of the recent wage arbitration awards made between railroad carriers and their employees that have come to the attention of the bureau have provided for increases for the employees and have been accompanied by a dissenting opinion made by the arbitrator appointed by the carriers. The following, signed by Benjamin Thomas on April 26, 1927, is typical of the dissenting opinions:

I regret that I can not concur in the majority decision in this case, believing as I do that notwithstanding the sincerity of the other members, the conclusions they have reached in awarding an increase in wages are not warranted by the evidence presented.

The award involves an increase of about 5½ per cent to approximately 950 employees; based on 1926 performance, it adds between \$50,000 and \$60,000 a year to an item of nonproductive expense which now aggregates nearly \$1,000,000 a year.

Ninety-five per cent of the employees affected are crossing tenders. Such positions in many cases can be, and in many cases are now, filled by employees not physically able to engage in more active work.

The Boston & Maine average rate for this class before the award was higher by from 6 to 44 cents per day (2.1 to 17.8 per cent) than all but one of its connections, according to reports to Interstate Commerce Commission, and was 37.3 cents a day, or 14.7 per cent, above the average for all the Class I railroads in the United States. Knowing that the duties of such employees are substantially the same all over the country, I could not justify signing an award which would widen the spread, and put the Boston & Maine rate still higher than that of its neighbors and of the country generally.

Four connecting roads have granted increases to crossing tenders and their new average rate is below the old average rate of the Boston & Maine. One other road, having relatively few employees in this group, granted an increase which brought their new rate about ¼ cent per hour, or less than 2 cents per day, above the old Boston & Maine rate.

In addition to these considerations, the evidence conclusively showed that the cost of living has not increased since the last change in wages of this class of employees, which was established by the United States Railroad Labor Board.

I can not escape the conclusion that this award is very largely the result of recent wage increases to other classes of employees awarded by other arbitration boards rather than an exclusive consideration of the evidence presented.

The further conclusion seems inevitable that the application for arbitration under the present railway labor act is being regarded as synonymous with compromise.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for April, 1927

By J. J. KUNNA, CHIEF STATISTICIAN U. S. BUREAU OF IMMIGRATION

DURING the month of April, 1927, there were 50,344 aliens admitted to the United States and 18,576 departed, causing an increase to the alien population of 31,768. Of these alien admissions, 33,034 came here for a permanent stay while 17,310 were transients. Of those departing, 4,185 had been living here a year or more and were leaving permanently, and the remainder, 14,391, were either here on a visit or intend to return after a short absence in a foreign country.

Eight European countries each furnished over half a thousand immigrants during April, ranking in order as follows: Germany, 5,288; Irish Free State, 3,402; Scotland, 1,526; England, 1,147; Poland, 830; Norway, 798; Sweden, 725; and Italy, 697. But the total immigration from Canada (6,225) and Mexico (7,810) was almost as large as the combined immigration from the above eight countries in the Old World.

During the same month 1,530 aliens were denied entrance to the United States for various causes under the immigration laws, principally because they failed to secure visas from American consuls. Most of these were debarred at the international land boundaries, 1,054 at the Canadian and 183 at the Mexican border stations. The other 293 aliens debarred in April were turned back at the seaports. One thousand and thirty-six aliens were deported from the United States during April, 1927. Of this number, nearly half were sent to countries on the Western Hemisphere, 280 going to Canada, 169 to Mexico, and 62 to other Americas. Europe received only 396; 118 went to Asia and 11 to Africa; and Australia.

Of the 50,344 aliens admitted to the United States during April, 17,116 came in as immigrants charged to the quota and 14,741 as natives of nonquota countries principally, of course, Canada and Mexico. Returning United States residents numbered 7,546; aliens coming temporarily on business or pleasure, 5,468; and 2,720 aliens were en route to other countries. The remaining 2,753 belonged to the other admissible classes under the act, including Government officials, wives and children of United States citizens, students, ministers, and professors, aliens to carry on trade under existing treaty, and veterans of the World War.

During the 10 months ended April 30, 1927, a total of 135,808 aliens charged to the quota had been admitted. The countries which exhausted their annual quotas during April were Belgium, Bulgaria, and New Zealand. This makes six countries which have exhausted their allotments during the current fiscal year, Greece, Latvia, and Luxemburg having reached theirs during March.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1926, TO APRIL 30, 1927

Period	Inward					Aliens de- barred from enter- ing ¹	Outward					Aliens de- ported after land- ing ²		
	Aliens admitted			United States citizens ar- rived	Total		Aliens departed			United States citizens de- parted	Total			
	Immi- grant	Non- immigrant	Total				Emi- grant	Non- emi- grant	Total					
1926														
July	22,283	16,096	38,379	25,981	64,360	1,746	7,052	17,970	25,022	60,223	85,245	81		
August	29,286	20,467	49,753	52,683	102,436	1,601	7,376	15,410	22,786	42,248	65,034	1,120		
September	35,297	25,680	60,977	71,268	132,245	1,817	6,634	16,392	23,026	26,268	49,294	88		
October	34,528	22,059	56,587	34,176	90,763	1,566	5,377	13,803	19,180	18,150	37,330	1,100		
November	30,756	16,185	46,941	21,844	68,785	1,713	6,859	13,078	19,937	17,992	37,929	1,085		
December	23,805	11,803	35,608	16,777	52,385	1,915	9,481	16,875	26,356	19,608	45,964	1,241		
1927														
January	18,804	9,219	28,023	16,913	44,936	1,499	3,928	10,053	13,981	21,483	35,464	90		
February	21,695	10,379	32,074	25,097	57,171	1,308	3,949	12,085	16,034	29,732	45,766	1,104		
March	29,868	16,370	46,238	32,752	78,990	1,437	4,244	13,502	17,746	27,041	44,787	1,386		
April	33,034	17,310	50,344	29,055	79,399	1,530	4,185	14,391	18,576	26,815	45,391	1,006		
Total	279,356	165,568	444,924	326,546	771,470	16,132	59,085	143,559	202,644	289,560	492,204	10,696		

¹ These aliens are not included among arrivals, as they were not permitted to enter the United States.² These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

TABLE 2.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING APRIL, 1927, AND FROM JULY 1, 1926, TO APRIL 30, 1927, BY RACE OR PEOPLE, SEX, AND AGE GROUP

Race or people	Immigrant		Emigrant	
	April, 1927	July, 1926, to April, 1927	April, 1927	July, 1926, to April, 1927
African (black)	101	770	51	73
Armenian	104	834	1	40
Bohemian and Moravian (Czech)	111	2,246	83	1,151
Bulgarian, Serbian, and Montenegrin	61	526	85	1,215
Chinese	55	940	254	3,575
Croatian and Slovenian	55	634	18	238
Cuban	103	1,462	82	774
Dalmatian, Bosnian, and Herzegovinian	5	57	1	308
Dutch and Flemish	329	2,685	101	716
East Indian	2	41	2	79
English	3,629	34,179	596	5,616
Finnish	48	554	58	370
French	1,650	16,468	156	1,289
German	5,991	48,555	407	3,471
Greek	226	2,015	285	2,700
Hebrew	1,070	9,642	16	191
Irish	4,678	37,894	74	1,266
Italian (north)	195	2,082	10	1,996
Italian (south)	644	12,087	631	13,830
Japanese	50	526	64	933
Korean	2	39	3	44
Lithuanian	48	429	11	262
Magyar	100	915	69	713
Mexican	7,727	52,552	177	2,554
Pacific Islander		6		6
Polish	327	3,640	163	2,051
Portuguese	86	744	68	2,091
Rumanian	44	342	49	951
Russian	115	1,067	16	412
Ruthenian (Russniak)	58	369	5	17
Scandinavian (Norwegians, Danes, and Swedes)	2,024	16,626	208	2,583
Scotch	2,400	21,827	65	1,695
Slovak	286	860	55	606
Spanish	123	839	118	2,245
Spanish-American	333	2,468	132	1,250
Syrian	66	602	20	147
Turkish	10	80	15	144
Welsh	133	1,121	1	46
West Indian (except Cuban)	22	303	13	662
Other peoples	23	330	22	184
Total	33,034	279,356	4,185	59,085
Male	20,324	161,838	2,829	43,030
Female	12,710	117,518	1,356	16,055
Under 16 years of age	4,671	42,793	192	2,291
16 to 44 years of age	25,797	212,340	3,129	43,637
45 years of age and over	2,566	24,223	864	13,157

TABLE 3.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED TO, AND INTENDED FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED FROM, THE UNITED STATES DURING APRIL, 1927, AND FROM JULY 1, 1926, TO APRIL 30, 1927, BY COUNTRIES

[Residence for a year or more is regarded as permanent residence]

Country	Immigrant		Emigrant	
	April, 1927	July, 1926, to April, 1927	April, 1927	July, 1926, to April, 1927
Albania	29	190	20	205
Austria	143	909	10	313
Belgium	49	656	47	353
Bulgaria	9	200	5	101
Czechoslovakia	410	3,170	138	1,646
Danzig, Free City of	17	207	-	6
Denmark	240	2,084	18	408
Estonia	4	129	-	10
Finland	28	387	57	345
France, including Corsica	428	3,888	147	1,121
Germany	5,288	41,641	338	2,982
Great Britain and Northern Ireland:				
England	1,147	8,368	369	3,795
Northern Ireland	113	434	2	162
Scotland	1,526	10,541	58	1,293
Wales	120	932	-	28
Greece	182	1,640	282	2,699
Hungary	83	691	61	624
Irish Free State	3,402	23,436	77	871
Italy, including Sicily and Sardinia	697	13,057	650	15,783
Latvia	24	373	2	15
Lithuania	73	605	7	227
Luxemburg	17	92	-	4
Netherlands	209	1,489	42	316
Norway	798	5,207	99	1,269
Poland	830	7,806	158	2,000
Portugal, including Azores, Cape Verde, and Madeira Islands	31	521	67	2,079
Rumania	85	1,022	49	985
Russia	137	1,003	12	196
Spain, including Canary and Balearic Islands	32	349	63	1,791
Sweden	725	7,298	71	674
Switzerland	208	1,774	51	450
Turkey in Europe	20	184	-	22
Yugoslavia	103	954	98	1,545
Other Europe	33	342	-	10
Total, Europe	17,240	141,579	2,998	44,328
Armenia	-	-	-	-
China	115	1,264	257	3,632
India	4	68	3	115
Japan	51	581	66	981
Palestine	48	389	11	123
Persia	-	-	-	-
Syria	27	2	-	22
Turkey in Asia	63	533	29	127
Other Asia	6	41	6	65
Total, Asia	296	3,094	378	5,121
Canada	6,225	70,139	156	1,522
Newfoundland	409	2,463	13	264
Mexico	7,810	53,383	212	2,614
Cuba	208	2,383	164	1,258
Other West Indies	138	803	82	1,791
British Honduras	11	103	1	13
Other Central America	202	1,274	49	516
Brazil	132	902	12	173
Other South America	233	2,172	67	955
Total, America	15,368	133,622	756	9,106
Egypt	35	195	1	20
Other Africa	25	244	6	70
Australia	47	377	35	301
New Zealand	21	211	10	113
Other Pacific Islands	2	34	1	26
Total, others	130	1,061	53	530
Grand total, all countries	33,034	279,356	4,185	59,085

TABLE 4.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING APRIL, 1927, AND FROM JULY 1, 1926, TO APRIL 30, 1927, BY COUNTRY OR AREA OF BIRTH

[Quota immigrant aliens are charged to the quota; nonimmigrant and nonquota immigrant aliens are not charged to the quota]

Country or area of birth	Annual quota	Admitted					Grand total July 1, 1926, to April 30, 1927	
		Quota immigrant		Nonimmigrant and nonquota immigrant		Total during April, 1927		
		July 1, 1926, to April 30, 1927	April, 1927	July 1, 1926, to April 30, 1927	April, 1927			
Albania	100	78	11	578	58	69	656	
Andorra	100	8	1	6	2	3	14	
Austria	785	775	129	1,382	156	285	2,157	
Belgium	1,512	475	49	1,391	131	180	1,866	
Bulgaria	100	114	6	207	20	26	321	
Czechoslovakia	3,073	2,874	325	3,325	273	598	6,199	
Danzig, Free City of	228	198	15	47	5	29	245	
Denmark	1,279	2,217	268	1,920	199	467	4,137	
Estonia	124	122	1	95	9	10	217	
Finland	471	404	41	1,477	136	177	1,881	
France	1,3,954	3,186	362	5,244	434	796	8,420	
Germany	61,227	42,627	5,388	12,370	1,233	6,621	54,907	
Great Britain and Northern Ireland:								
England		10,477	1,431	21,360	2,110	3,541	31,837	
Northern Ireland		790	146	438	38	184	1,288	
Scotland	1,34,007	11,620	1,641	8,351	740	2,351	19,971	
Wales		1,042	147	854	68	215	1,896	
Greece	100	152	15	3,418	340	355	3,510	
Hungary	473	428	55	1,589	115	170	2,017	
Iceland	100	55	3	20	2	5	75	
Irish Free State	28,567	26,549	3,760	4,679	366	4,126	31,228	
Italy	1,3,845	3,414	143	27,011	2,428	2,571	30,425	
Latvia	142	158	7	228	15	22	386	
Liechtenstein	100	23	3	1	1	4	24	
Lithuania	344	299	38	786	79	117	1,085	
Luxembourg	100	88	8	111	12	20	190	
Monaco	100	7	1	7	1	1	14	
Netherlands	1,648	1,353	205	2,086	144	349	3,439	
Norway	6,453	5,253	639	3,759	504	1,143	9,012	
Poland	5,982	5,248	436	6,258	695	1,131	11,506	
Portugal	1,503	420	40	2,159	186	226	2,579	
Rumania	603	642	61	1,596	143	204	2,288	
Russia	1,2,248	1,829	225	2,611	270	495	4,440	
San Marino	100	72	3	-----	-----	75	75	
Spain	1,131	150	17	4,813	749	766	4,963	
Sweden	9,561	7,964	973	3,482	320	1,293	11,446	
Switzerland	2,081	1,665	192	2,224	175	367	3,889	
Turkey in Europe	1,100	78	5	1,068	57	62	1,146	
Yugoslavia	671	549	58	2,162	218	276	2,711	
Other Europe	(1)	242	30	152	16	46	394	
Total, Europe	1,161,422	133,645	16,875	129,268	12,447	29,322	262,913	
Afghanistan	100	1	-----	1	-----	-----	2	
Arabia	100	12	1	3	1	2	15	
Armenia	124	55	7	92	9	16	147	
Bhutan	100	1	-----	-----	-----	-----	1	
China	100	112	12	7,163	568	580	7,275	
India	100	82	8	447	49	57	529	
Iraq (Mesopotamia)	100	68	8	25	1	9	33	
Japan	100	22	-----	6,023	737	737	6,045	
Muscat	100	-----	2	-----	-----	2	1	
Nepal	100	-----	-----	1	1	1	1	
Palestine	100	128	6	301	38	44	429	
Persia	100	75	1	77	7	8	152	
Siam	100	1	-----	21	-----	22	22	
Syria	100	119	11	757	70	81	876	
Turkey in Asia	(1)	35	-----	602	131	131	637	
Other Asia	(1)	179	23	153	14	37	333	
Total, Asia	1,424	890	77	15,608	1,626	1,703	16,558	

¹ Annual quota for colonies, dependencies, or protectorates in Other Europe, Other Asia, Other Africa, Other Pacific, and in America, is included with the annual quota for the European country to which they belong. Quota for Turkey in Asia is included with that for Turkey in Europe.

TABLE 4.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING APRIL, 1927, AND FROM JULY 1, 1926, TO APRIL 30, 1927, BY COUNTRY OR AREA OF BIRTH—Continued

Country or area of birth	Annual quota	Admitted				
		Quota immigrant		Nonimmigrant and nonquota immigrant		Grand total July 1, 1926, to April 30, 1927
		July 1, 1926, to April 30, 1927	April, 1927	July 1, 1926, to April 30, 1927	April, 1927	
Cameroon (British)	100	1		2		3
Cameroon (French)	100					
Egypt	100	89	7	112	19	26
Ethiopia	100			1		1
Gabon	100	2		3		5
Morocco	100	14		18	1	32
Uganda and Urundi	100					
South Africa, Union of	100	149	23	328	39	62
South West Africa	100					
Zambia	100					
Rhodesia	100					
Tanganyika	100					
Togoland (British)	100					
Togoland (French)	100					
Other Africa	(1)	53	4	98	12	16
Total, Africa	1,200	308	34	562	71	105
Australia	121	139	12	2,946	358	370
New Zealand	100	100	7	884	116	123
New Guinea	100					
Tonga	100	3		11	2	2
Fiji	100			4		4
Other Pacific	(1)	16	3	128	12	15
Total, Pacific	621	258	22	3,973	488	510
Canada				68,473	6,263	68,473
Newfoundland				4,330	667	4,330
Mexico				66,311	9,326	66,311
Cuba				7,119	625	7,119
Dominican Republic				726	80	726
Haiti				187	21	187
British West Indies	1,542	81	3,743	441	522	4,285
Dutch West Indies	131	11	159	18	29	190
French West Indies	128	4	48	5	9	76
British Honduras	151	8	75	15	23	127
Canal Zone				33	2	33
Other Central America				2,671	356	2,671
Brazil				1,275	169	1,275
British Guiana	148	4	118	15	19	166
Dutch Guiana	12		14			16
French Guiana	(1)			4,324	523	523
Other South America						
Iceland	(1)			2		2
Iceland and St. Pierre	15		36			41
Total, America	707	108	159,645	18,596	18,704	160,352
Grand total, all countries	164,667	135,808	17,116	309,116	33,228	50,344
						444,924

¹ Annual quota for colonies, dependencies, or protectorates in Other Europe, Other Asia, Other Africa, Other Pacific, and in America, is included with the annual quota for the European country to which they belong. Quota for Turkey in Asia is included with that for Turkey in Europe.

² Also includes aliens to whom visas were issued during the latter part of the fiscal year ended June 30, 1926, and charged to the quota for that year. (Nationality for quota purposes does not always coincide with actual nationality. See section 12 of the act.)

TABLE 5.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING APRIL, 1927, AND FROM JULY 1, 1926, TO APRIL 30, 1927, BY SPECIFIED CLASSES

[The number of immigrants appearing in this table and in Table 4 is not comparable with the number of statistical immigrant aliens shown in the other tables, by races, countries, States, and occupations.]

	Class	April, 1927	July, 1926, to April, 1927
<i>Nonimmigrants</i>			
Government officials, their families, attendants, servants, and employees.....		551	4,000
Temporary visitors for—			
Business.....		2,169	18,337
Pleasure.....		3,299	28,440
In continuous transit through the United States.....		2,720	22,300
To carry on trade under existing treaty.....		112	1,600
Total.....		8,851	74,737
<i>Nonquota immigrants</i>			
Wives of United States citizens.....		1,833	17,558
Children of United States citizens.....		1,680	16,244
Residents of the United States returning from a visit abroad.....		7,546	79,366
Natives of Canada, Newfoundland, Mexico, Cuba, Haiti, Dominican Republic, Canal Zone, or an independent country of Central or South America.....		² 14,741	² 132,051
Their wives.....		1,64	1,700
Their children.....		1,10	1,100
Ministers of religious denominations.....		30	400
Wives of ministers.....		25	200
Children of ministers.....		54	550
Professors of colleges, academies, seminaries, or universities.....		2	120
Wives of professors.....		1	10
Children of professors.....		1	10
Students.....		75	1,600
Veterans of the World War.....		204	3,600
Wives of veterans.....		00	64
Children of veterans.....		50	794
Spanish subjects admitted into Porto Rico.....		1	5
Total.....		24,377	234,301
Quota immigrants (charged to quota).....		17,116	135,808
Grand total admitted.....		50,344	444,928

¹ Wives, and unmarried children under 18 years of age, born in quota countries.

² Does not include aliens born in nonquota countries who were admitted under the act as Government officials, visitors, returning residents, etc.

Immigration to Canada, 1926-27

THE total number of immigrants to Canada in the fiscal year ended March 31, 1927, was 143,991, including 49,784 British, 21,025 from the United States, and 73,182 from other countries. Furthermore, in the same 12 months, 56,957 Canadians returned from the United States, bringing the total to 200,948. These figures and the following two tables are taken from the May, 1927, issue of the Canadian Labor Gazette:

IMMIGRATION TO CANADA DURING FISCAL YEAR ENDED MARCH 31, 1927, BY SEX, OCCUPATION, AND DESTINATION

Sex, occupation, and destination	Number of immigrants		
	Via ocean ports	From United States	Total
Adult males	69,763	10,749	80,512
Adult females	29,648	5,180	34,828
Children under 18	23,555	5,096	28,651
Total	122,966	21,025	143,991
Farming class:			
Males	55,650	5,233	60,883
Females	5,460	1,203	6,663
Children	12,717	1,691	14,408
Laboring class:			
Males	4,862	1,323	6,185
Females	847	224	1,071
Children	1,454	205	1,659
Mechanics:			
Males	4,617	1,774	6,391
Females	1,562	398	1,960
Children	1,184	303	1,487
Trading class:			
Males	2,105	978	3,083
Females	1,064	362	1,426
Children	663	186	849
Mining class:			
Males	965	151	1,116
Females	104	10	114
Children	127	7	134
Female domestic servants	13,019	538	13,557
Other classes:			
Males	1,564	1,290	2,854
Females	7,592	2,445	10,037
Children	7,410	2,704	10,114
Destination:			
Nova Scotia	1,702	113	1,815
New Brunswick	911	247	1,158
Prince Edward Island	125	27	152
Quebec	13,735	2,907	16,642
Ontario	34,769	6,835	40,604
Manitoba	35,449	1,290	36,739
Saskatchewan	16,423	3,662	20,085
Alberta	11,780	4,587	16,367
British Columbia	8,060	2,316	10,376
Yukon Territory	4	30	34
Northwest Territories	3	3	3
Not given	5	11	16

IMMIGRATION TO CANADA, BY NATIONALITY, DURING FISCAL YEAR ENDED MARCH 31, 1927

Nationality	Number	Nationality	Number
Albanian	17	Magyar	4,863
Arabian	4	Maltese	33
Armenian	65	Mexican	1
Austrian	401	Montenegrin	5
Belgian	2,080	Moravian	36
Bohemian	22	Negro	51
British:		Persian	6
English	24,800	Polish	6,505
Irish	9,197	Portuguese	14
Scotch	14,296	Rumanian	292
Welsh	1,411	Russian	1,127
Bulgarian	126	Ruthenian	9,995
Chinese	2	Scandinavian:	
Croatian	1,085	Danish	2,030
Czech	721	Icelandic	30
Dutch	1,674	Norwegian	3,384
East Indian	60	Swedish	2,028
Estonian	92	Serbian	885
Finnish	5,180	Slovak	4,274
French	548	Spanish	29
German	12,540	Spanish-American	6
Greek	340	Swiss	568
Herzegovinian	3	Syrian	218
Italian	3,301	Turkish	8
Japanese	475	Via ocean ports	122,966
Jewish	4,471	From the United States	21,025
Jugo-Slav	2,084	Total	143,991
Korean	1		
Lettish	60		
Lithuanian	842		

Mennonite Migration to Paraguay

WHILE 2,000 Mennonites have already migrated to Paraguay it is estimated that within the next few years more than a hundred thousand members of this denomination will make their homes in that Republic, according to an article by John W. White, editor and publisher, of Buenos Aires.¹

The Mennonites take their name from Menno Simons, born in 1492, a Catholic priest who left that church and became the chief exponent of the views which later became known as Mennonite, although he was not the originator of this sect. Its original home was in Zurich where Grebel and Manz founded the community in 1525.

The sect's main interest lay in discipline rather than in dogma. They not only abstain from worldly vanities but refuse the civic duties of taking an oath or using the sword. For a period of 400 years the Mennonites have been searching for a place where they may live in peace apart from the rest of the world. In 1783 they migrated in large numbers to southern Russia and from there went to North America where to-day they number 200,000, of whom 175,000 are in the United States and 25,000 are in Canada.

As a result of persecution resulting from the World War and their belief that warfare is un-Christian, they are migrating now to Paraguay where the Government has granted them a charter providing for complete and perpetual immunity from military duty and exemption from participation in warfare, even as noncombatants.

There are 42 sects of noncombatant peoples in all parts of the world. These are watching the Mennonites move to Paraguay and several sects have already made plans to join them.

Five years of preliminary work has been done in preparing, for the Mennonites, the 3,000,000 acres of fertile land in the upper Paraguayan Chaco 1,700 miles above Buenos Aires.

The writer compares their colonization with that of the Puritans and their followers in the United States, in that they will build their first town on the shore and will work westward. On the other hand they will not have to fight Indians, as did the early American settlers, for the Paraguayan Government has sent the national army to build fortifications and to protect the colonists from marauders.

The most important privileges of the charter granted to the Mennonites by the Paraguayan Government are the following: Freedom from military service; exemption from the oath in courts of justice; the privilege of conducting their own churches and schools in their own language, which is German; exemption from all classes of national and municipal taxes; exemption from immigration laws; and the free entry of furniture, machinery, utensils, animals, seeds, implements, etc., in short everything necessary for the development of the colonies.

Although the Paraguayan Government has extended these privileges only to the Mennonites, it is now considering extending the charter to include all the noncombatant peoples of the world.

¹ Pan American Union Bulletin, Washington, May, 1927, pp. 432-442.

A hotel and several substantial community houses have been built at Puerto Casado on the Paraguay River to house temporarily the first colonists. It is expected that within a period of eight months the first arrivals will become self-supporting. In about a year it is planned to send a hundred families about 100 kilometers inland to select the best location and establish another colony. Motor trucks and bullock carts are to furnish the means of communication and carry them supplies as well as to bring back their produce for sale at the port. When the second colony has been firmly established the colonists will go farther inland and set up newer communities.

Authorized representatives of the Mennonites who have explored the territory describe it in the official report as follows:

There are endless opportunities awaiting the skillful and industrious man, and there is not a place on earth except Paraguay that offers such attractions with so few obstacles to overcome. * * * Riches lie dormant awaiting men's energy, thrift, and skill to turn the immense, wild, uncultivated prairies and meadows into a paradise. There, are all resources for the creation of wealth, coupled with the most wonderful climate which can be found anywhere on the globe.

ACTIVITIES OF STATE LABOR BUREAUS

California.—Report on effect of minimum-wage regulations, page 46; and changes in volume of employment and pay roll, page 136.

Illinois.—Changes in employment and earnings in factories, page 138.

Iowa.—Changes in volume of employment in specified industries, page 140.

Maryland.—Volume of employment in that State, page 141.

Massachusetts.—Changes in volume of employment in various industries, page 142.

Missouri.—Coal-mine accidents in 1926, page 59.

New Jersey.—Changes in employment and pay rolls, page 142.

New York.—Index numbers of employment and pay rolls in factories of the State, page 144.

Oklahoma.—Changes in employment and pay rolls in 710 establishments, page 146.

Wisconsin.—Data on volume of employment, page 146.

NOTES OF INTEREST TO LABOR

New Labor Party in Brazil

A NEW labor party has been formed at Porto-Alegre, Brazil, according to the May 9 issue of Industrial and Labor Information, issued by the International Labor Office.

The party indorses free and compulsory elementary education and technical occupational training. It holds that work should be compulsory for every fit person regardless of his trade or class, and that wages for both manual and intellectual workers should be high enough to provide for their comfort as well as their subsistence. The party favors the enactment of a law requiring employers of private undertakings to distribute among their permanent employees 60 per cent of the profits. That State lands should be parceled out and divided among individuals under certain conditions is also urged. The construction of workers' settlements and the enforcement of the eight-hour day are approved. The party's program indorses legislation for the protection of the cooperative movement. It indorses infant protection in all its forms.

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JAMES J. DAVIS.

Inclined to believe that the author of such a book is not able to give it the attention it deserves.

(302-002 qq 1931 publication) Being compiled by the Bureau of Labor Statistics.

LABOR OFFICES IN UNITED STATES AND FOREIGN COUNTRIES

(Bureaus of Labor, Employment Offices, Industrial Commissions, State Workmen's Compensation Insurance Funds, Workmen's Compensation Commissions, Minimum Wage Boards, Factory Inspection Bureaus, and Arbitration and Conciliation Boards)

United States

Department of Labor:

Hon. James J. Davis, Secretary.

Hon. Robert Carl White, Assistant Secretary.

Hon. W. W. Husband, Second Assistant Secretary.

Address: 1712 G Street NW., Washington, D. C.

Bureau of Labor Statistics—

Ethelbert Stewart, commissioner.

Address: 1712 G Street NW., Washington, D. C.

Bureau of Immigration—

Harry E. Hull, commissioner general.

Address: 1712 G Street NW., Washington, D. C.

Bureau of Naturalization—

Raymond F. Crist, commissioner.

Address: 1712 G Street NW., Washington, D. C.

Children's Bureau—

Miss Grace Abbott, chief.

Address: Twentieth Street and Virginia Avenue NW., Washington, D. C.

Employment Service—

Francis I. Jones, director general.

Address: Twentieth and C Streets NW., Washington, D. C.

Conciliation Service—

Hugh L. Kerwin, director.

Address: 1712 G Street NW., Washington, D. C.

Women's Bureau—

Miss Mary Anderson, director.

Address: Twentieth Street and Virginia Avenue NW., Washington, D. C.

United States Housing Corporation—

Robert Watson, director.

Address: 200 New Jersey Avenue NW., Washington, D. C.

United States Employees' Compensation Commission:

Mrs. Bessie P. Brueggeman, chairman.

Charles H. Verrill, commissioner.

Harry Bassett, commissioner.

Address of commission: The Interior Building, Washington, D. C.

Railroad Board of Mediation:

Samuel E. Winslow.

G. Wallace W. Hanger.

Edwin C. Morrow.

Pat M. Neff.

John Williams.

Address of board: Earle Building, Washington, D. C.

Alabama

Child welfare commission:

Bibb Graves, ex officio chairman, governor.

Child welfare department—

Mrs. A. M. Tunstall, director.

Child labor division—

Miss Phadra Norsworthy, chief inspector.

Address of commission: Montgomery.

Workmen's compensation division:

Frank N. Julian, commissioner, ex officio superintendent of insurance.

Walter H. Monroe, deputy superintendent of insurance.

R. P. Coleman, workmen's compensation clerk.

Address of division: Montgomery.

Alaska

Federal mine inspector:

B. D. Stewart, supervising mining engineer, United States Geological Survey, Juneau.

Arizona

Industrial commission:

R. B. Sims, chairman.

Burt H. Clingan.

H. S. McCluskey.

Harry R. Tritle, secretary.

John J. Taheny, attorney.

A. C. Kingsley, medical examiner.

Address of commission: Phoenix.

State inspector of mines:

Tom C. Foster, Phoenix.

United States Employment Service:

Katherine Doolittle, superintendent, 121 North Second Avenue, Phoenix.

Arkansas

Bureau of labor and statistics:

W. A. Rooksberry, commissioner.

E. I. McKinley, deputy commissioner and supervisor of statistical division.

J. D. Newcomb, jr., chief boiler inspector.

Industrial welfare commission—

W. A. Rooksberry, ex officio member and chairman.

Mrs. Mary E. Prothro, secretary.

A. S. Maupin, Pine Bluff.

Mrs. W. T. Wooten, Hot Springs.

Jack Hill, Fort Smith.

Mine inspection department—

Claude Speegle, State mine inspector, Fort Smith.

Address of bureau: State Capitol, Little Rock.

United States Employment Service:

W. A. Rooksberry, Federal director for State, State Capitol, Little Rock.

California

Bureau of labor statistics:

Walter G. Mathewson, commissioner, State Building, Civic Center, San Francisco.

Industrial accident commission:

John A. McGilvray, chairman.

John W. Carrigan.

J. E. Olmsted.

E. G. Sheibley, chief engineer and superintendent of safety.

F. B. Lord, secretary.

M. R. Gibbons, medical director.

G. C. Faulkner, attorney.

Address of commission: State Building, Civic Center, San Francisco.

State compensation insurance fund:

Clark B. Day, manager, State Building, Civic Center, San Francisco.

Industrial welfare commission:

A. B. C. Dohrmann, chairman.

Mrs. Katherine Philips Edson, executive commissioner.

George F. Neal.

James W. Costello.

George S. Hollis.

Address of commission: State Building, Civic Center, San Francisco.

Commission of immigration and housing:

Most Rev. E. J. Hanna, D. D., president.

Chas. C. Chapman.

R. W. Kearney, attorney and executive officer.

Address of commission: State Building, Civic Center, San Francisco.

United States Employment Service:

Walter G. Mathewson, Federal director for State, State Building, Civic Center, San Francisco.

Colorado**Bureau of labor statistics:**

Chas. M. Armstrong, secretary of State and ex-officio labor commissioner.

M. H. Alexander, deputy labor commissioner and chief factory inspector.

Address of bureau: State Capitol, Denver.

Industrial commission:

Thomas Annear, chairman.

W. H. Young.

George M. Taylor.

William F. Mowry, secretary.

Feay B. Smith, referee.

State compensation insurance fund—

Thomas P. Kearney, manager.

Minimum wage commission (according to an act passed by the 1917 legislature and effective July 20, 1917, the industrial commission performs the duties of the minimum wage commission)—

Address of commission: State Capitol, Denver.

Connecticut**Department of labor and factory inspection:**

Harry E. Mackenzie, commissioner, Hartford.

State employment offices—

Harry E. Mackenzie, commissioner, Hartford.

Board of compensation commissioners:

Frederic M. Williams, chairman, room 4, county courthouse, Waterbury.

Chas. Kleiner, 177 Church Street, New Haven.

Edward T. Buckingham, 1024 Main Street, Bridgeport.

Leo J. Noonan, 54 Church Street, Hartford.

Albert J. Bailey, Central Building, Norwich.

State board of mediation and arbitration:

Frank A. Hagarty, Hartford.

Patrick F. O'Meara, New Haven.

Joseph H. Lawlor, Waterbury.

United States Employment Service:

Harry E. Mackenzie, Federal director for State, Hartford.

Delaware**Labor commission:**

(Vacancy), chairman.

Miss Helen S. Garrett, acting chairman.

John H. Hickey.

Thomas C. Frame, jr.

George A. Hill.

Miss Marguerite Postles, secretary.

Address of commission: Wilmington.

Child labor division—

Charles A. Hagner, chief, Industrial Trust Building, Wilmington.

Women's labor division—

Miss Marguerite Postles, assistant, Industrial Trust Building, Wilmington.

Industrial accident board:

Walter O. Stack, president.

Robert K. Jones.

William J. Swain.

James B. McManus, secretary.

Address of board: Statehouse, Dover, and Delaware Trust Building, Wilmington.

Florida**State labor inspector:**

John H. Mackey, 31 East Ashley Street, Jacksonville.

Georgia**Department of commerce and labor:**

H. M. Stanley, commissioner.

W. E. Christie, assistant commissioner.

I. L. Griffin, factory inspector.

Address of department: Atlanta.

Industrial commission:

H. M. Stanley, chairman.

George M. Napier, attorney general (ex officio).

Max E. Land, representing employers.

T. E. Whitaker, representing employees.

C. W. Roberts, medical director.

Sharpe Jones, secretary-treasurer.

Elizabeth Ragland, assistant secretary.

L. J. Kilburn, safety inspector.

Address of commission: Atlanta.

United States Employment Service:

Cator Woolford, Federal director for State, 42 Fairlie Street, Atlanta.

Hawaii***City and county of Honolulu*****Industrial accident board:**

W. W. Goodale, chairman.

A. J. Campbell.

A. J. Wirtz.

M. MacIntyre.

H. W. Laws.

A. F. Schmitz, secretary.

B. C. Stewart, inspector.

Address of board: Fourth floor, Territorial Office Building, Honolulu.

County of Maui**Industrial accident board:**

Joseph H. Gray, chairman, Wailuku.

Don T. Carey, Wailuku.

Ralph H. Wilson, Wailuku.

Frank N. Lufkin, Lahaina.

W. F. Crockett, Wailuku.

Mrs. Francis S. Wadsworth, inspector and secretary, Wailuku.

County of Hawaii**Industrial accident board:**

Byron K. Baird, chairman.

Otto Rose.

James Webster.

Dr. H. B. Elliot.

Gavin A. Bush.

Mrs. L. Hazel Bayly, secretary.

Address of board: Hilo.

County of Kauai

Industrial accident board:

J. M. Lydgate, chairman, Lihue.
 Fred Trowbridge, Kapaa.
 J. B. Fernandez, Kapaa.
 H. H. Brodie, Hanapepe.
 C. H. Gates, Lihue.

Idaho

Industrial accident board:

G. W. Suppiger, chairman.
 Joel Brown.
 Lawrence E. Worstell.
 John D. Case, secretary.
 Address of board: Boise.

State insurance fund:

F. E. Fisk, Boise.

Illinois

Department of labor:

George B. Arnold, director, State Capitol, Springfield.

Division of factory inspection—

W. H. Curran, chief inspector, 1543 Transportation Building, 608 South Dearborn Street, Chicago.

Division of free employment offices—

C. M. Crayton, State superintendent, State Capitol, Springfield.

Division of private employment agencies—

John J. McKenna, chief inspector, 608 South Dearborn Street, Chicago.
 General advisory board (for the Illinois Free Employment Offices)—

Prof. F. S. Deibler, chairman, Evanston.
 Dr. A. H. R. Atwood, secretary (representing employers), Chicago.
 Oscar G. Mayer (representing employers).
 John H. Walker (representing employees).
 Agnes Nestor (representing employees).

Industrial commission—

William M. Scanlan, chairman.
 John J. Brenholt, jr. (representing employers).
 John B. French (representing employers).
 James Short (representing employees).
 Clayton A. Pense (representing employees).
 Walter F. Rohm, secretary.

Dr. S. Latham, medical director.

Address of commission: 300 West Adams Street, Chicago.

Bureau of industrial accidents and labor research—

Sidney W. Wilcox, chief.

Address: 300 W. Adams St., Chicago.

United States Employment Service:

Barney Cohen, Federal director for State, 116 North Dearborn Street, Chicago.

Indiana

Industrial board:

Samuel R. Artman, chairman.
 Ray V. Gibbons.
 Walter W. Wills.
 Edgar A. Perkins, sr.
 Thomas A. Riley.
 Charles A. Rockwell, secretary.

Address of board: Room 432, Statehouse, Indianapolis.

Department of factories, buildings, and workshops—

James E. Reagin, chief inspector, room 404, Statehouse, Indianapolis.

Department of boilers—

James M. Woods, chief inspector (also locomotive inspector for the Public Service Commission), room 404, Statehouse, Indianapolis.

Department of women and children—

Mrs. Margaret Tomlin Hoop, director, room 403, Statehouse, Indianapolis.

Department of mines and mining:

Albert C. Dally, chief inspector, room 430, Statehouse, Indianapolis.

United States Employment Service:

E. P. Dailey, Federal director for State, room 404, Statehouse, Indianapolis.

Iowa

Bureau of labor:

A. L. Urick, commissioner.

Free employment bureau—

George B. Albert, clerk.

Address of bureau: Des Moines.

Workmen's compensation service:

A. B. Funk, industrial commissioner.

Ralph Young, deputy commissioner.

R. U. Woodcock, secretary.

Dr. Oliver J. Fay, medical counsel.

Address of service: Statehouse, Des Moines.

State bureau of mines:

W. E. Holland, inspector first district, Centerville.

R. T. Rhys, inspector second district, Ottumwa.

Edward Sweeney, inspector third district, Des Moines.

J. R. Frank, secretary, Des Moines.

United States Employment Service:

A. L. Urick, Federal director for State, Des Moines.

Kansas

Public service commission:

L. T. Hussey, chairman.

Clarence Smith.

Frank O'Brien.

W. B. Dalton.

W. C. Millar.

E. N. Cummings, secretary.

Address of commission: Statehouse, Topeka.

Mine inspection department—

James Sherwood, chief mine inspector, Pittsburg.

Free employment office—

John H. Crawford, director of labor department and Federal director for State, United States Employment Service, Statehouse, Topeka.

Mrs. Daisy L. Gulick, director of women's work and factory inspector, Statehouse, Topeka.

Kentucky

Department of agriculture, labor, and statistics:

Clell Coleman, commissioner, Frankfort.

Edward F. Seiller, chief labor inspector, 95 Todd Building, Louisville.

George Schneider, deputy labor inspector, 95 Todd Building, Louisville.

John E. Rodgers, deputy labor inspector, 104 West Third Street, Covington.

Mrs. C. H. Karsner, deputy labor inspector, Forks of Elkhorn.

Mrs. Evelyn B. Rodman, deputy labor inspector, 95 Todd Building, Louisville.

Workmen's compensation board:

Joseph M. Lee, chairman.

R. T. Kennard.

Thos. S. Rhea.

Forrest G. Fields, actuary.

John B. Dryden, secretary.

E. E. Fields, referee.

J. Wood Vance, referee.

Address of board: Frankfort.

Louisiana

Bureau of labor and industrial statistics:

Frank E. Wood, commissioner, suite 626, Audubon Building, New Orleans.

Mrs. Edward Pillsbury, factories inspector, suite 5, Howard Annex, Municipal Building, New Orleans.

United States Employment Service:

Frank E. Wood, Federal director, suite 626, Audubon Building, New Orleans.

Maine

Department of labor and industry:

Charles O. Beals, commissioner, Statehouse, Augusta.

Industrial accident commission:

Donald D. Garcelon, chairman.

Willis P. Hall, associate legal member.

Charles O. Beals (ex officio) commissioner of labor.

Wilbur D. Spencer (ex officio) insurance commissioner.

Address of commission: Statehouse, Augusta.

State board of arbitration and conciliation:

Frank H. Ingraham, chairman, Rockland.

Edward F. Gowell, Berwick.

William T. Hinckley, secretary, 178 Forrest Avenue, Bangor.

United States Employment Service:

Charles O. Beals, Federal director for State, Statehouse, Augusta.

Maryland

Commissioner of labor and statistics:

J. Knox Insley, M. D., St. Paul and Saratoga Streets, Baltimore.

State industrial accident commission:

Robert H. Carr, chairman.

Omar D. Crothers.

George Louis Eppler.

A. E. Brown, secretary.

Miss R. O. Harrison, director of claims.

Dr. Robert P. Bay, chief medical examiner.

State accident fund—

James E. Green, superintendent.

Address of commission: 741 Equitable Building, Baltimore.

United States Employment Service:

John Allison Muir, Federal director, 1900 Washington Boulevard, Baltimore.

Massachusetts

Department of labor and industries:

E. Leroy Sweetser, commissioner.

Miss Ethel M. Johnson, assistant commissioner.

Associate commissioners (constituting the board of conciliation and arbitration and the minimum wage commission)—

Edward Fisher, chairman.

Herbert P. Wasgatt.

Samuel Ross.

Division of industrial safety—

John P. Meade, director.

Division of statistics (including public employment offices)—

Roswell F. Phelps, director.

Division of standards—

Francis Meredith, director.

Division of minimum wage—

Miss Ethel M. Johnson, acting director.

Address of department: Room 473, Statehouse, Boston.

Department of industrial accidents:

William W. Kennard, chairman.

Frank J. Donahue.

David T. Dickinson.

Joseph A. Parks.

Chester E. Gleason.

Charles M. Stiller.

(Vacancy.)

Robert E. Grandfield, secretary.

Francis D. Donoghue, M. D., medical adviser.

Address of board: Room 272, Statehouse, Boston.

United States Employment Service:

E. Leroy Sweetser, Federal director for State, 473 Statehouse, Boston.

Michigan

Department of labor and industry:

Eugene J. Brock, chairman.

Samuel H. Rhoads, compensation commissioner.

Isabel Larwill, compensation commissioner.

Perry J. Ward, compensation commissioner.

S. B. Mullen, statistician.

H. F. Baker, secretary.

Address of department: Lansing.

State accident fund:

William T. Shaw, manager, Lansing.

United States Employment Service:

Eugene J. Brock, Federal director for State, Lansing.

Minnesota

Industrial commission:

F. A. Duxbury, chairman.

Henry McColl.

J. D. Williams.

John P. Gardiner, secretary.

Division of workmen's compensation—

F. E. Hoffmann, chief.

Division of accident prevention—

David R. Henderson, chief.

Division of boiler inspection—

George Wilcox, chief.

Division of women and children—

Miss Louise E. Schutz, superintendent.

Address of commission: 612 Bremer Arcade, St. Paul.

United States Employment Service:

J. D. Williams, Federal director for State, 612 Bremer Arcade, St. Paul.

Mississippi

Department of State factory inspection:

R. S. Curry, M. D., State factory inspector, Jackson.

Missouri

Bureau of labor statistics:

Roye B. Hinkle, commissioner, Jefferson City.

Department of industrial inspection:

Mrs. Alice Curtice Moyer-Wing, Fullerton Building, St. Louis.

Workmen's compensation commission:¹

Alroy S. Phillips, chairman.

Evert Richardson.

Orin H. Shaw.

Larry Brunk, secretary.

Address of commission: Jefferson City.

United States Employment Service:

Roye B. Hinkle, Federal director for State, Jefferson City.

¹ Organized Nov. 16, 1926.

Montana

Department of agriculture, labor, and industry:

A. H. Bowman, commissioner.

Division of labor—

Barclay Craighead, chief.

Address of department: Helena.

Industrial accident board:

J. Burke Clements, chairman.

G. P. Porter, State auditor and (ex officio) commissioner of insurance.

A. H. Bowman, commissioner of agriculture, labor, and industry, and (ex officio) treasurer of board.

George G. Watt, secretary.

Thomas C. Patrick, chief accountant.

Address of board: Helena.

Bureau of safety inspection—

(Vacancies.)

Nebraska

Department of labor:

Frank A. Kennedy, secretary of labor and compensation commissioner, State Capitol, Lincoln.

United States Employment Service:

Frank A. Kennedy, Federal director for State, State Capitol, Lincoln.

Nevada

Office of labor commissioner:

William Royle, labor commissioner, Carson City.

Industrial commission:

Dan J. Sullivan, chairman.

Alex. L. Tannahill.

William Royle.

Dr. Vinton A. Muller, chief medical adviser, Gray-Reid Building, Reno.

Address of commission: Carson City.

Inspector of mines:

A. J. Stinson, Carson City.

United States Employment Service:

William Royle, Federal director for State, Carson City.

New Hampshire

Bureau of labor:

John S. B. Davie, commissioner, Concord.

Bion L. Nutting, factory inspector, Concord.

Harold I. Towle, factory inspector, Laconia.

Mary R. Chagnon, factory inspector, Manchester.

State board of conciliation and arbitration:

J. R. McLane (representing public), Manchester.

George A. Tenney (representing manufacturers), Claremont.

Russell C. Thorsell (representing labor), Exeter.

United States Employment Service:

John S. B. Davie, Federal director for State, Concord.

New Jersey

Department of labor:

Andrew F. McBride, M. D., commissioner.

Martin Szamatolski, M. D., consulting chemist.

Bureau of general and structural inspection and explosives—

Charles H. Weeks, deputy commissioner of labor.

Bureau of hygiene and sanitation—

John Roach, deputy commissioner of labor.

Bureau of electrical and mechanical equipment—

(Vacancy) chief.

Bureau of statistics and records—

James A. T. Gribbin, chief.

Bureau of child labor—

Mary A. McGowan, chief.

Department of labor—Continued.

Bureau of engineers' license, steam boiler, and refrigerating plant inspection—
Joseph F. Scott, chief examiner.

Bureau of workmen's compensation—

Andrew F. McBride, M. D., commissioner.

William E. Stubbs, deputy commissioner and secretary.

Harry J. Goss, deputy commissioner.

Charles E. Corbin, deputy commissioner.

John J. Stahl, referee.

John J. Kent, special investigator.

John C. Wegner, special investigator.

Harry F. Monroe, special investigator.

Frank Mobius, special investigator.

Hugh J. Arthur, special investigator.

Maurice S. Avidan, M. D., medical adviser.

Bureau of employment—

Russell J. Eldridge, director.

Address of department: State Office Building, Trenton.

United States Employment Service:

Andrew F. McBride, M. D., Federal director for State, Trenton.

New Mexico

Mine inspector:

W. W. Risdon, Gallup.

New York

Department of labor:

James A. Hamilton, industrial commissioner.

James J. Leavy, deputy industrial commissioner.

Sara McPike, secretary.

Address of department: 124 East Twenty-eighth Street, New York.

Industrial board—

Frances Perkins, chairman.

Richard J. Cullen.

James S. Whipple.

Edward W. Edwards.

Leonard W. Hatch.

Address of board: 124 East Twenty-eighth Street, New York.

Bureau of inspection—

James L. Gernon, director, 124 East Twenty-eighth Street, New York.

Bureau of workmen's compensation—

James E. Donahoe, director.

Dr. Raphael Lewy, chief medical examiner.

Address of bureau: 124 East Twentieth-eighth Street, New York.

Bureau of industrial relations—

James Brady, director, 124 East Twenty-eighth Street, New York.

Division of mediation and arbitration—

A. J. Portenar, chief mediator, 124 East Twenty-eighth Street, New York.

Division of employment—

Richard A. Flinn, chief, 124 East Twenty-eighth Street, New York.

Division of aliens—

Lillian R. Sire, director, 124 East Twenty-eighth Street, New York.

Division of industrial code—

Edward E. J. Pierce, referee.

Thomas C. Eipper, referee.

Address of division: 124 East Twenty-eighth Street, New York.

Division of engineering—

William J. Picard, chief, State Capitol, Albany.

Bureau of industrial hygiene—

Dr. Leland E. Cofer, director, 124 East Twenty-eighth Street, New York.

Bureau of statistics and information—

Eugene B. Patton, director, 124 East Twenty-eighth Street, New York.

Mary E. Lonigan, chief statistician, State Capitol, Albany.

Department of labor—Continued.**Bureau of women in industry—**

Miss Nelle Swartz, director, 124 East Twenty-eighth Street, New York.

State insurance fund—

C. G. Smith, manager, 432 Fourth Avenue, New York.

Division of self-insurance—

John J. Ryan, director, 124 East Twenty-eighth Street, New York.

United States Employment Service:

James A. Hamilton, Federal director for State, 124 East Twenty-eighth Street, New York.

North Carolina**Department of labor and printing:**

Frank D. Grist, commissioner, Raleigh.

United States Employment Service:

Frank D. Grist, Federal director for State, Raleigh.

North Dakota**Department of agriculture and labor:**

Joseph A. Kitchen, commissioner, Bismarck.

Workmen's compensation bureau:

Joseph A. Kitchen, chairman.

S. S. McDonald.

S. A. Olsness.

G. N. Livdahl.

R. E. Wenzel.

(Vacancy), secretary.

Address of bureau: Bismarck.

Minimum wage commission:

Alice Angus, secretary, Bismarck.

Ohio**Department of industrial relations:**

H. R. Witter, director.

Industrial commission—

P. F. Casey, chairman.

Thomas M. Gregory.

Wellington T. Leonard.

H. R. Witter, secretary.

Division of workmen's compensation—

W. A. Harman, assistant director, department of industrial relations.

W. K. Merriman, supervisor of claims.

Evan I. Evans, supervisor of actuarial division.

G. L. Coffinberry, auditor and statistician.

Dr. H. H. Dorr, chief medical examiner.

Division of labor statistics (including free employment service)—

O. W. Brach, chief.

Division of safety and hygiene—

Thomas P. Kearns, superintendent.

Carl C. Beasor, chief statistician.

Division of factory inspection—

C. A. Benedict, chief.

Division of boiler inspection—

C. O. Myers, chief.

Division of examiners of steam engineers—

A. L. Lindsay, chief.

Division of mines—

Jerome Watson, chief.

Address of department: Columbus.

United States Employment Service:

O. W. Brach, Federal director for State, Columbus.

Oklahoma

Department of labor:

W. A. Pat Murphy, commissioner, State Capitol, Oklahoma City.

Board of arbitration and conciliation:

W. A. Pat Murphy, chairman, Oklahoma City.

E. N. Ellis, assistant commissioner of labor, secretary, Oklahoma City.

O. B. Toalson, Bartlesville.

John Kramer, R. R. No. 4, Broken Arrow.

T. F. Gwaltney, Durant.

James C. Powers, Oklahoma City.

Charles Pound, Cushing.

A. Derryberry, Altus.

Industrial commission:

L. B. Kyle, chairman.

Mrs. F. L. Roblin.

G. T. Bryan.

Mrs. A. E. Bond, secretary.

Address of commission: State Capitol, Oklahoma City.

United States Employment Service:

W. A. Pat Murphy, Federal director for State, State Capitol, Oklahoma City.

Oregon

Bureau of labor:

C. H. Gram, commissioner and factory inspector, Salem.

W. H. Fitzgerald, deputy commissioner, 501 Courthouse, Portland.

Board of inspectors of child labor:

Stephen G. Smith, chairman, 65-67 Broadway, Portland.

Mrs. Sarah A. Evans, Portland.

Miss Pauline Kline, Corvallis.

Mrs. A. M. Grilley, Portland.

Mrs. Millie R. Trumbull, secretary, 646-648 Courthouse, Portland.

Industrial welfare commission:

Mrs. L. Gee, chairman.

F. C. Whitten.

Dr. C. J. Smith.

Mrs. Millie R. Trumbull, secretary and inspector.

Address of commission: 646-648 Courthouse, Portland.

State industrial accident commission:

E. E. Bragg, chairman.

Sam Laughlin.

Dr. F. H. Thompson, medical adviser.

Address of commission: Salem.

State board of conciliation:

William F. Woodward, chairman, 550 Medical Arts Building, Portland.

John K. Flynn, 589 Hoyt Street, Portland.

William E. Kimsey, secretary, 244 Salmon Street, Portland.

United States Employment Service:

W. H. Fitzgerald, Federal director and zone clearance officer, 501 Court-house, Portland.

Pennsylvania

Department of labor and industry:

Charles A. Waters, secretary.

Industrial board—

State workmen's insurance board—

Charles A. Waters, chairman.

M. H. Taggart, insurance commissioner.

Samuel S. Lewis, State treasurer.

State workmen's insurance fund—

Philip H. Dewey, manager.

Workmen's compensation board—

Paul W. Houck, chairman.

Joseph E. Fleitz.

J. L. Morrison.

Charles A. Waters, ex officio.

J. C. Detweiler, secretary.

Department of labor and industry—Continued.

Bureau of workmen's compensation—

W. H. Horner, director.

Bureau of employment—

Robert J. Peters, director.

Bureau of industrial relations—

David Williams, director.

Bureau of industrial standards—

J. M. Sandel, director.

Bureau of women and children—

Charlotte E. Carr, director.

Bureau of inspection—

Cyril Ainsworth, director.

Bureau of rehabilitation—

S. S. Riddle, director.

Bureau of statistics—

William J. Maguire, director.

Address of department: South Office Building, Harrisburg.

United States Employment Service:

Robert J. Peters, Federal director for State, Harrisburg.

Philippine Islands

Bureau of labor (under department of commerce and communications):

Hermenegildo Cruz, director, Manila.

Porto Rico

Department of agriculture and labor:

Carlos E. Chardón, commissioner.

Bureau of labor—

Carmelo Honoré, chief.

Address of department: San Juan.

Workmen's relief commission:

Ramon Montaner, chairman.

R. Palacios Rodriguez, vice chairman.

Joaquin A. Becerril, secretary and permanent member.

Alfredo Vargas.

P. Rivera Martinez.

Pedro Santana, jr.

J. Cintron Davila, administrative secretary.

Address of commission: Post-office box 266, San Juan.

Rhode Island

Department of labor:

Edward L. Byers, commissioner, Statehouse, Providence.

Office of factory inspectors:

J. Ellery Hudson, chief inspector, Statehouse, Providence.

Board of labor (for the adjustment of labor disputes):

Edward L. Byers, commissioner of labor, chairman.

Edwin O. Chase (representing employers).

William C. Fisher (representing employers).

Albert E. Hohler (representing employees).

John H. Powers (representing employees).

Christopher M. Dunn, deputy commissioner of labor, secretary.

Address of board: Statehouse, Providence.

United States Employment Service:

Edward L. Byers, Federal director for State, Statehouse, Providence.

South Carolina

Department of agriculture, commerce, and industries:

J. W. Shealy, commissioner.

Address of department: Columbia.

Board of conciliation and arbitration:

B. E. Geer, chairman, Greenville.

W. H. McNairy, Dillon.

H. E. Thompson, secretary, Batesburg.

South DakotaOffice of industrial commissioner:²

S. A. Travis, industrial commissioner.

Address: Pierre.

Tennessee

Department of labor:

Ed. M. Gillenwaters, commissioner, Nashville.

Ben Feldman, secretary, Nashville.

Division of factory inspection—

M. F. Nicholson, chief inspector, Nashville.

Division of mines—

O. P. Pile, chief inspector, Cowan.

Division of hotel inspection—

Sam I. Bolton, inspector, Nashville.

Division of workmen's compensation—

Harry L. Nelson, superintendent, 2211 Pierce Avenue, Nashville.

United States Employment Service:

J. A. Porter, special agent, Knoxville.

Texas

Bureau of labor statistics:

Chas. McKemy, commissioner.

Robt. B. Gragg, chief deputy.

B. C. Westbrook, secretary and statistician.

Miss Nell Kirkpatrick, assistant secretary.

Address of bureau: State Capitol, Austin.

Industrial accident board:

Jas. W. Swayne, chairman.

J. M. Pittillo.

Mrs. Espa Stanford.

E. B. Barnes, secretary.

United States Employment Service:

C. W. Woodman, assistant director, 806 Taylor Street, Fort Worth.

Utah

Industrial commission:

Wm. M. Knerr, chairman.

O. F. McShane.

Henry N. Hayes.

Carolyn I. Smith, secretary.

State insurance fund—

Chas. A. Caine, manager.

Address of commission: State Capitol, Salt Lake City.

Vermont

Office of commissioner of industries:

Clarence R. White, commissioner, Montpelier.

Fred S. Pease, deputy commissioner, Burlington.

State board of conciliation and arbitration:

Henry C. Brislin, Rutland.

Ashley J. Goss, Danville.

Hugh J. M. Jones, Montpelier.

Virginia

Department of labor and industry:

John Hopkins Hall, jr., commissioner.

H. W. Furlow, assistant commissioner.

Division of mines—

A. G. Lucas, chief.

Division of factory inspection—

John Gribben, chief.

² Administers workmen's compensation act.

Department of labor and industry—Continued.**Division of women and children—**

Mrs. Mary L. Serogham, director.

Division of industrial statistics—

Miss Elizabeth Myers, statistician.

Address of department: State Office Building, Richmond.

Industrial commission:

Bolling H. Handy, chairman.

C. G. Kizer.

Parke P. Deans.

F. P. Evans, statistician.

W. F. Bursey, secretary.

Address of commission: Box 1794, Richmond.

United States Employment Service:

John Hopkins Hall, jr., Federal director for State, State Office Building, Richmond.

Washington**Department of labor and industries:**

Claire Bowman, director.

John Shaughnessy, supervisor of industrial insurance and medical aid.

Martin J. Flyzik, supervisor of safety and industrial relations.

Mrs. G. V. Haney, supervisor of women in industry.

Dr. L. L. Goodnow, chief medical adviser.

R. M. Van Dorn, industrial statistician.

Percy Gilbert, secretary.

Industrial welfare committee—

Claire Bowman, chairman, director of labor and industries.

John Shaughnessy, supervisor of industrial insurance and medical aid.

R. M. Van Dorn, industrial statistician.

Martin J. Flyzik, supervisor of safety and industrial relations.

Mrs. G. V. Haney, supervisor of women in industry.

Address of department: Olympia.

United States Employment Service:

William C. Carpenter, Federal director for State, 421 Federal Building, Spokane.

West Virginia**Bureau of labor:**

Howard S. Jarrett, commissioner, Charleston.

State compensation commissioner:

C. L. Heaberlin, commissioner.

J. E. Brown, secretary.

J. W. Smiley, actuary.

Lewis J. Frey, chief statistician.

R. H. Walker, chief medical examiner.

Address: Charleston.

Department of mines:

R. M. Lambie, chief, Charleston.

United States Employment Service:

Howard S. Jarrett, Federal director for State, Charleston.

Wisconsin**Industrial commission:**

Fred M. Wilcox, chairman.

R. G. Knutson.

Voyta Wrabetz.

A. J. Altmeyer, secretary.

Safety and sanitation department—

R. McA. Keown, engineer.

Workmen's compensation department—

F. T. McCormick, Harry A. Nelson, A. T. Flint, I. M. Kittleson, examiners.

Employment department—

R. G. Knutson, director.

Apprenticeship department—

Walter F. Simon, supervisor.

Industrial commission—Continued.**Women and child labor department—**

Taylor Frye, director.

Miss Maud Swett, field director, room 809, Manufacturers' Home Building, Milwaukee.

Statistical department—

Orrin A. Fried, statistician.

Address of commission: Madison.

United States Employment Service:

R. G. Knutson, Federal director for State, State Capitol, Madison.

Wyoming**Department of labor and statistics:**

Harry C. Hoffman, commissioner.

Child labor board—

Harry C. Hoffman, secretary.

Lewis G. Tidball.

Dr. W. G. Hassed.

Address of department: Capitol Building, Cheyenne.

Workmen's compensation department (under State treasurer's office):

W. H. Edelman, State treasurer.

C. B. Morgan, deputy treasurer.

Arthur Calverley, assistant deputy and department manager.

Address of department: Cheyenne.

Albania**Ministry of Public Works (address, Tirana).****Argentina****Ministry of the Interior (address, Buenos Aires):**

National labor department.

Australia**Commonwealth Bureau of Census and Statistics³ (address, Melbourne).****Austria****Federal Statistical Office (address, Vienna):**

Labor statistics division.

Belgium**Ministry of Industry, Labor, and Social Welfare (address, 12/Rue Lambermont, Brussels):**

Labor office.

Bolivia**Ministry of Promotion (address, La Paz).****Brazil****Ministry of Agriculture, Industry, and Commerce (address, Rio de Janeiro).****Bulgaria****Ministry of Commerce, Industry, and Labor (address, Rue Albinska 48, Sofia):**

Labor section.

³ Publishes annual reports on labor and industrial statistics.

Canada**Department of Labor:**

Peter Heenan, minister.
 H. H. Ward, deputy minister.
 Gerald H. Brown, assistant deputy minister.
 R. A. Rigg, director of employment service.
 A. W. Crawford, director of technical education.
 E. G. Blackadar, acting superintendent of Dominion Government annuities.
 F. A. McGregor, registrar of combines investigation act.
 C. W. Bolton, chief of statistical branch.
 F. J. Plant, chief of labor intelligence branch.

Address of department: Ottawa, Ontario.

Alberta**Department of public works:**

W. Smitten, commissioner of labor.
 F. W. Hobson, chief boiler inspector.
 H. M. Bishop, chief factory inspector.
 G. P. Barber, chief theater inspector.
 John T. Stirling, chief mine inspector.

Addresses of department: Edmonton.

Government employment bureau:

William Carnill, superintendent, Calgary.
 W. G. Paterson, superintendent, Edmonton.
 A. R. Redshaw, superintendent, Lethbridge.
 J. W. Wright, superintendent, Medicine Hat.
 A. A. Colquhoun, superintendent, Drumheller.

Workmen's compensation board:

John T. Stirling, chairman.
 Walter F. McNeill, commissioner.
 James A. Kinney, commissioner.
 Frederick D. Noble, secretary.
 Address of board: Qu'Appelle Building, Edmonton.

British Columbia**Department of labor:**

A. M. Manson, minister, Victoria.
 J. D. McNiven, deputy minister, Victoria.
 Robert J. Stewart, chief factories inspector, Vancouver.

Employment service—

J. H. McVety, general superintendent, Vancouver.

Minimum wage (for females) board—

J. D. McNiven, deputy minister of labor, chairman.
 Mrs. Helen G. MacGill.

Thos. Mathews.

Miss Mabel Agnes Cameron, secretary.

Hours of work and minimum wage (for males) board—

J. D. McNiven, deputy minister of labor, chairman.
 F. V. Foster.
 T. F. Paterson.

Address of board: Parliament Buildings, Victoria.

Workmen's compensation board:

E. S. H. Winn, K. C., chairman.

Parker Williams.

Hugh B. Gilmour.

F. W. Hinsdale, secretary.

Address of board: Board of Trade Building, Vancouver.

Manitoba**Bureau of labor:**

W. R. Clubb, minister of public works.
 Edward McGrath, secretary.
 Arthur MacNamara, chief inspector.

Bureau of labor—Continued.

Fair wage board—

D. L. McLean, deputy minister of public works, chairman.

J. W. Morley.

E. Claydon.

Walter Owens.

C. J. Harding.

Minimum wage board—

Geo. N. Jackson, chairman

Mrs. Edna M. Nash.

James Winning.

Mrs. Jessie McLellan.

L. J. Rumford.

Address of bureau: 332 Parliament Building, Winnipeg.

Workmen's compensation board:

C. K. Newcombe, commissioner.

R. S. Ward.

G. E. Carpenter.

N. Fletcher, secretary.

Address of board: 166 Portage Avenue East, Winnipeg.

New Brunswick

Department of labor:

H. I. Taylor, minister, St. George.

Workmen's compensation board:

J. A. Sinclair, chairman.

F. C. Robinson.

J. L. Sugrue.

Address of board: Post Office Box 1422, St. John.

Inspection of factories:

John Kenney, St. John.

Nova Scotia

Department of public works and mines:

C. S. Harrington, minister.

Norman McKenzie, deputy minister

Address of department: Halifax.

Workmen's compensation board:

V. J. Paton, K. C., chairman.

Fred W. Armstrong, vice chairman.

John T. Joy, commissioner.

Address of board: Halifax.

Employment service:

C. J. Cotter, superintendent men's division, Halifax.

Miss Elda E. Caldwell, superintendent women's division, Halifax.

Ontario

Department of labor:

Hon. Forbes Godfrey, minister.

James H. H. Ballantyne, deputy minister.

D. M. Medcalf, chief inspector of steam boilers.

James T. Burke, chief inspector of factories, shops, and office buildings.

J. M. Brown, chairman stationary and hoisting engineers' board.

Employment service—

H. C. Hudson, general superintendent, Ontario offices.

Address of department: Parliament Buildings, Toronto.

Minimum wage board:

Dr. J. W. Macmillan, chairman.

H. G. Fester.

Mrs. Lydia Parsons.

Miss Margaret Stephens.

R. A. Stapells.

Address of board: Parliament Buildings, Toronto.

Workmen's compensation board:

Victor A. Sinclair, K. C., chairman.
 Henry J. Halford, vice chairman.
 George A. Kingston, commissioner.
 N. B. Wormith, secretary.
 T. Norman Dean, statistician.
 F. W. Graham, claims officer.
 W. E. Struthers, medical officer.
 D. E. Bell, medical officer.
 J. M. Bremner, medical officer.

Address of board: Metropolitan Building, 44 Victoria Street, Toronto.

Quebec**Department of labor:**

Antonin Galipeault, K. C., minister, Quebec.
 Louis Guyon, deputy minister, and chief inspector of industrial establishments and public buildings, 63 Notre Dame Street East, Montreal.
 Alfred Robert, fair wages officer and deputy chief inspector, 63 Notre Dame Street East, Montreal.
 Felix Marois, registrar of board of conciliation and arbitration, Parliament Buildings, Quebec.

Saskatchewan**Bureau of labor and industries:**

Thomas M. Molloy, commissioner.
 T. Withy, chief factory inspector.
 E. Pierce, mine inspector.

Government employment branch—

G. E. Tomsett, general superintendent.

Address of bureau: Regina.

Minimum wage board:

John A. Mather, chairman, Saskatoon.
 Mrs. Wm. Allen, Moose Jaw.
 J. P. Keleher, Moose Jaw.
 Mrs. F. M. Eddie, Regina.
 J. K. R. Williams, Regina.
 T. Withy, chief factory inspector, secretary, Regina.

Chile

Ministry of Health, Social Welfare, and Labor (address, Santiago).

China

[A department of labor is under consideration, but the organization has not progressed sufficiently at this time to give any details.]

Colombia

Ministry of Public Works (address, Bogota).

Costa Rica

Ministry of Public Works (address, San José).

Cuba

Secretariat of Agriculture, Commerce, and Labor (address, Havana).
 Immigration, land settlement, and labor sections.

Czechoslovakia

Ministry of Social Welfare⁴ (address, Valdsteinska, 10, Prague, III).
 Ministry of Public Works⁵ (address, Presslova, 6, Prague-Smichov).

⁴ Handles labor relations at large.

⁵ Labor questions relating to workers in mines; legislation; insurance statistics.

Denmark

Social Ministry (address, Copenhagen):

Labor board—

 25 Amaliegade, Copenhagen.

Labor and factory inspection department—

 25 Amaliegade, Copenhagen.

Workmen's compensation board—

 3 Kongens Nytorv, Copenhagen.

Dominican Republic

Department of Agriculture and Immigration (address, San Domingo).

Dutch East Indies

Department of Justice (address, Batavia, Java):

Labor bureau.

Ecuador

Ministry of Public Instruction (address, Quito).

Department of labor.

Egypt

Ministry of Interior, Council of Arbitration (address, Cairo).

Estonia

Ministry of Labor and Social Welfare (address, Reval).

Finland

Ministry of Social Affairs (address, Helsingfors).

France

Ministry of Labor and Hygiene (address, Rue de Grenelle, 127, Paris).

Germany

Ministry of Labor (address, Scharnhorststrasse, 35, Berlin N. W., 40).

Great Britain

Ministry of Labor (address, Montagu House, Whitehall, London, S. W., 1).

Greece

Ministry of National Economy (address, Rue Valoalitou, 3, Athens).

Directorate of labor and social welfare.

Guatemala

Ministry of Public Works (address, Guatemala).

Haiti

Department of Public Works (address, Port au Prince).

Honduras

Ministry of the Interior (address, Tegucigalpa).

Hungary

Ministry of Social Welfare and Labor (address, Kyralyi Palota, Budapest).

India

Department of Industries (address, Delhi).

Irish Free State

Department of Industry and Commerce (address Government Building, Dublin).

Italy

Ministry of National Economy (Rome).

Japan

Bureau of Social Affairs (address, Tokyo).

Latvia

Ministry of Public Welfare (address, Riga).

Lithuania

Ministry of Home Affairs (address, Kaunas).

Luxemburg

General Directorate of Agriculture, Industry, and Social Welfare (address, Arlon):
Division of commerce, industry, and labor.

Mexico

Department of Industry, Commerce, and Labor (address, Mexico City).

Netherlands

Ministry of Labor, Commerce, and Industry (address, Bezuidenhout, The Hague).

New Zealand

Department of Labor (address, Wellington).

Nicaragua

Minister of Public Works (address, Managua).

Norway

Ministry of Social Affairs (address, Viktoria terrasse, 11-13, Oslo).

Panama

Ministry of Public Works (address, Panama).

Paraguay

Ministry of the Interior (address, Asuncion).

Persia

Ministry of Commerce, Agriculture, and Public Works (address, Teheran).

Peru

Ministry of Public Works (address, Lima).

Poland

Ministry of Labor and Social Assistance (address, Place Dombrowski, 1, Warsaw).

Portugal

Ministry of Labor (address, Lisbon).

Rumania

Ministry of Public Health, Labor, and Social Welfare (address, Strada Wilson, Bucharest).

Salvador

Ministry of the Interior, Industry, and Agriculture (address, San Salvador).

Kingdom of the Serbs, Croats, and Slovenes

Ministry of Social Policy (address, Belgrade).

Siam

Ministry of Commerce (address, Bangkok):

Board of commercial development (deals with labor matters).

Spain

Ministry of Labor, Commerce and Industry (address, Paseo de la Castellana, 3, Madrid).

Sweden

Ministry of Social Affairs (address, Mynttorget 2, Stockholm):

Labor and social welfare section.

Switzerland

Federal Department of National Economy (address, Palais Federal, Berne):

Federal labor office.

Union of South Africa

Department of Labor (address, Pretoria).

Uruguay

Ministry of Industry (address, Montevideo):

National labor office.

Venezuela

Ministry of Public Works (address, Caracas).

PUBLICATIONS RELATING TO LABOR

Official—United States

ALASKA.—Mine Inspector. *Annual report, 1923.* [Juneau, 1924.] 109 pp.

— — — Report upon industrial accidents, compensation and insurance in Alaska for the biennium ending December 31, 1924. [Juneau, 1927.] 30 pp.

CALIFORNIA.—Industrial Welfare Commission. *Fifth report, for the biennial periods July 1, 1922, to June 30, 1924, and July 1, 1924, to June 30, 1926.* Sacramento, 1926. 143 pp.

Data from this publication are given on page 46 of this issue.

MASSACHUSETTS.—Special Commission on the Necessaries of Life. *Report (under Chapter 273 of the Acts of 1925), January, 1927.* Boston, 1927. 219 pp. [House No. 1106.]

MISSOURI.—Bureau of Mines. Inspection Department. *Thirty-ninth annual report, year ending December 31, 1926.* Jefferson City, [1927]. 92 pp.

Some statistics on mine accidents from this report are given on page 59 of this issue.

NEW JERSEY.—Department of Labor. *The Industrial Bulletin.* No. 1, Vol. 1, May, 1927. Trenton. 66 pp.

A new publication to give more detailed and up-to-date information on the many activities of the New Jersey Department of Labor and to stimulate its personnel.

UNITED STATES.—Department of Commerce. Bureau of Mines. *Technical Paper No. 386: Explosibility of coal dust from four mines in Utah,* by H. P. Greenwald. Washington, 1927. 20 pp.

Describes with tables and a chart and diagram, certain tests made by the Bureau of Mines "to determine the amount of inert dust or water that must be added to the coal dust being examined to make this nonexplosive under various conditions." These tests included the initiation of dust explosions, using the samples supplied by the cooperating mines in Utah, in the bureau's experimental mine at Bruceton, Pa., by two methods, namely, (1) directly by a blown-out shot and (2) by the ignition of an explosive mixture of gas and air.

The conclusion must be drawn from these tests that water can not be relied on as a general preventive of coal-dust explosions. Dust that contained 20 per cent of moisture propagated an explosion in three out of six trials, and when gas was used as a primary source of ignition the explosion was violent and destructive. Wet dust is explosive, and only needs to be raised in the air to become as much of a menace as dry dust.

Although the above tests show that general watering in entries will not prevent the spread of a well-developed explosion, the use of water at the face and on mining machines may readily prevent the initiation of an explosion from sources other than an ignition of gas. Water is effective in preventing the ignition of coal dust from weak sources of ignition.

— — — *Technical Paper No. 412: Accidents at metallurgical works in the United States during the calendar year 1925,* by William W. Adams. Washington, 1927. 40 pp.

A brief summary of this report appears on page 51 of this issue.

UNITED STATES.—Department of Commerce. Bureau of the Census. *Mortality statistics, 1924.* Washington, 1927. 487 pp., map, charts.

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 434: Labor legislation of 1926.* Washington, 1927. iii, 58 pp.

The bulletin contains a cumulative index, covering not only its contents, but also those of previous compilations issued by the bureau.

— *Bulletin No. 436: Safety code for the use, care, and protection of abrasive wheels.* Washington, 1927. iv, 22 pp., diagrams.

— *Bulletin No. 437: Cooperative movement in the United States in 1925 (other than agricultural).* Washington, 1927. iv, 165 pp.

Data from this bulletin have been published in the following issues of the Labor Review: 1926—July, pp. 20–25, August, pp. 23–30, September, pp. 1–6, November, pp. 1–13; 1927—January, pp. 20–34, May, pp. 18–21.

— Employment Service. *Directory of public employment offices, April, 1927.* Washington, 1927. 19 pp.

— Women's Bureau. *Bulletin No. 59: Short talks about working women.* Washington, 1927. v, 24 pp.

A series of informal discussions of women's progress in industry, recognition by the Federal Government, standards of employment, wages, hours, and working conditions, and of the women to whom these conditions apply.

Official—Foreign Countries

AUSTRALIA (WESTERN AUSTRALIA).—Registrar of Friendly Societies. *Report of proceedings for the year ended June 30, 1926.* Perth, 1927. 27 pp.

The registrar reports a prosperous year for the friendly societies, with a membership at its end of 22,225. The total capital of the societies now amounts to £388,968. During the year sickness benefits amounted to £19,928 and funeral benefits to £4,853.

CANADA (BRITISH COLUMBIA).—Workmen's Compensation Board. *Tenth annual report, for the year ended December 31, 1926.* Victoria, 1927. 32 pp.

Data from this report are given on page 69 of this issue.

— (ONTARIO).—Workmen's Compensation Board. *Report for 1926.* Toronto, 1927. 72 pp.

A brief review of this report is found on page 69 of this issue.

GREAT BRITAIN.—Foreign Office. *Miscellaneous No. 2 (1927): Nationality and naturalization laws of certain foreign countries.* London, 1927. 91 pp. [Cmd. 2852.]

— Home Office. *Report on the incidence of silicosis in the pottery industry, by Dr. C. L. Sutherland and Dr. S. Bryson.* London, 1926. 52 pp.

A summary of this report is given on page 61 of this issue.

— Mines Department. Safety in Mines Research Board. *Paper No. 33: The inflammation of coal dusts—The effect of the chemical composition of the dust, by T. N. Mason and R. V. Wheeler.* London, 1927. 20 pp., charts.

The work described in this paper is concerned with the ignition of coal dust and "is an attempt to correlate the chemical composition of a coal with the 'inflammability' of its dust as determined by large-scale tests" of samples of coal dust from 7 New Zealand seams and from 12 British seams. It was desired to ascertain the amount of incombustible dust that had to be mixed intimately with coal dust "to prevent a violent source of ignition, somewhat arbitrarily chosen, from causing continued propagation of flame along a gallery strewn with the mixture," in this way determining the measure of the degree of inflammability of the coal dust being tested. Fuller's earth was used as the incombustible dust, while the coal dust was prepared from lump coal and all samples were pulverized to the same degree of fineness.

It was found that a very definite direct relationship exists between the content of volatile matter in coal and the inflammability of its dust. The degree of fineness of the coal dust is an important factor in its flammability. The report summarizes its findings as follows:

Experiments with dusts from a number of British bituminous coals have shown that there is a relationship between the content of "volatile matter" (calculated on an ash-free dry basis) and the amount of incombustible matter which must be present in the mixed coal dust and incombustible dust in order that continued propagation of flame shall not take place (under standard conditions of ignition) there being a tendency for the fine dusts from coals containing the higher percentages of volatile matter to be the more readily inflammable.

The report cites similar experiments, leading to practically the same conclusions, made by the United States Bureau of Mines and reported in its Bulletin 167, and by the Experimental Station of Le Comité Central des Houillères de France at Liévin, and reported in Ann. des Mines, 1921, 6, 429.

LEAGUE OF NATIONS.—Economic and Financial Section. *C. E. I. No. 11: Results of certain of the inquiries for instituting a comparison between the retail prices in private trade and those of distributive cooperative societies.* Geneva, 1926. 31 pp.

Document prepared for the use of the International Economic Conference of May 4, 1927, at Geneva. Reviewed briefly on page 63 of this issue.

— — — *C. E. I. No. 13: Scientific management in Europe.* Geneva, 1926. 15 pp.

A short review of this document appears on page 44 of this issue.

— — — *C. E. I. No. 14: The part played by cooperative organizations in the international trade in wheat, dairy produce, and some other agricultural products.* Geneva, 1926. 46 pp.

Prepared for the use of the International Economic Conference of May 4, 1927. Data from this report are given on page 64 of this issue.

— — — *C. E. I. No. 16: Electrical industry.* Geneva, 1927. 121 pp.

Contains data on distribution of production costs.

SPAIN.—Ministerio de Trabajo, Comercio e Industria. Jefatura Superior de Estadística. *Anuario estadístico de España, año XI, 1924-25.* Madrid, 1926. xxiii, 614 pp.

In addition to statistical data relating to population, production, agriculture, commerce, etc., this yearbook of Spain contains tables showing index numbers of food prices, wages, strikes, and industrial accidents in Spain. Wage statistics from this report are given on page 115 of this issue.

Unofficial

ALLGEMEINER DEUTSCHER GEWERTSCHAFTSBUND. *Jahrbuch, 1925.* Berlin, 1926. 237 pp.

The 1925 yearbook of the General Federation of German Trade Unions, contains much material on wage movements, employment, and other matters of labor interest.

ASQUITH, CYRIL. *Trade union law for laymen.* London, Cassell & Co. (Ltd.), 1927. ix, 102 pp.

This study, which was prepared before the introduction of the trade-union bill now pending, was intended to make accessible a general knowledge of the legal status of trade-unionism, from which the student of social affairs might draw conclusions as to what changes are desirable, and how a given change might be expected to affect the situation. Of special interest in the light of recent developments is the author's discussion of the lines along which reform in trade-union law might usefully be undertaken.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. Division of Economics and History. *War and insurance, by Sir Norman Hill and others.* London, Oxford University Press, 1927. xii, 283 pp.

HARDY, CHARLES O., AND COX, GARFIELD, V. *Forecasting business conditions.* New York, The Macmillan Co., 1927. x, 434 pp., charts.

A detailed description of the various methods used in predicting the course of business prosperity.

HOBSON, J. A. *The conditions of industrial peace.* London, George Allen & Unwin (Ltd.), 1927. 123 pp.

Emphasizes the interdependence of all industries, and therefore concludes that the settlement of industrial disputes, to be permanent, must be handled on a national basis. The author specifically recommends for this purpose a national industrial council, representing all the producing and consuming interests as well as the State.

HOFFMAN, FREDERICK L. *The decline in lead poisoning.* Address delivered before the Health Congress of the Royal Institute of Public Health, Ghent, Belgium, June, 1927. [Newark] Prudential Press, 1927. 20 pp.

In this paper various studies of lead poisoning in different industries are reviewed, the writer concluding from the data summarized that there has been a pronounced decline in the death rate from chronic lead poisoning in proportion to the total population during the last decade.

LABOR RESEARCH STUDY GROUP. *The law of social revolution, a cooperative study.* New York, Social Science Publishers, 1926. x, 262 pp.

LACOMBE, ÉDOUARD. *La prévision en matière de crises économiques.* Paris, Librairie des Sciences, Politiques et Sociales, 1926. 166 pp.

The author advocates that the League of Nations interest itself in the problem of the prediction of economic crises, pointing out that the instability of economic life is among the causes which create discord between peoples.

NATIONAL CONFERENCE ON CITY PLANNING. *Planning problems of town, city, and region: Papers and discussions at the eighteenth national conference on city planning, held at St. Petersburg and Palm Beach, Fla., March 29 to April 1, 1926.* Philadelphia, Wm. F. Fell Co., 1926. vi, 213 pp.

NATIONAL EDUCATION ASSOCIATION. Research Division. *Salaries in city school systems, 1926-27.* Washington, D. C., 1201 16th St. N. W., 1927. [Research Bulletin, Vol. V, No. 2, March, 1927, pp. 66-127.]

Data from this report are given on page 105 of this issue.

NEWFANG, OSCAR. *Harmony between labor and capital: An essay on the welfare of nations.* New York, G. P. Putnam's Sons, 1927. viii, 238 pp.

The thesis of this essay is that workers should have a drawing-account or preliminary wage similar to the drawing-account of partners in a copartnership, and that, at the close of the year's business, after a fair dividend has been paid upon capital, the remaining earnings should be allotted to the workers, both managerial and manual, in proportion to salaries or wages.

OHIO STATE UNIVERSITY. College of Commerce and Journalism. Bureau of Business Research. *The construction industry in Ohio,* by Ralph J. Watkins. Columbus, Ohio, 1926. vi, 168 pp., charts.

This report is reviewed on page 117 of this issue.

PAIRAULT, ANDRÉ. *L'Immigration organisée et l'emploi de la main-d'œuvre étrangère en France.* Paris, Les Presses Universitaires de France, [1927?]. vi, 359 pp.

The conclusion is reached in this volume that immigration to France is useful but dangerous to the national economy; that continued attention should be paid to it; and that various steps be taken to insure the assimilation of foreign elements pending the rise of the birth rate of the country to a figure which will permit the reduction of immigrants to the least possible number.

REDFORD, ARTHUR. *Labor migration in England, 1800-1850.* London, Longmans, Green & Co. (Ltd.), 1926. xvi, 174 pp.

A study of the connection between the industrial revolution and the contemporary movement of working-class population in England. The latter was not a simple transference of labor from the south and east of England to the north and west, but an exceedingly complex, wavelike movement. The character and cause of the different migrations are carefully considered, due weight being given to such contributory causes as surplus labor and the settlement question, the "hungry forties," the Irish influx, and the like, including effect of emigration upon the whole movement.

RETINGER, J. H. *Morones of Mexico: A history of the labor movement in that country.* London, Labor Publishing Co. (Ltd.), 1926. xvi, 107 pp.

Reviewed on page 81 of this issue.

RICHARDSON, J. H. *A study on the minimum wage.* London, George Allen & Unwin (Ltd.), 1927. 198 pp.

Among the subjects discussed in this volume are: Purposes of minimum wage legislation, the living wage, industry's capacity to pay, a national minimum, provision for the worker's dependents, machinery for fixing minimum wages, and international action.

One of the most difficult problems in the whole field of industry, the author thinks, is the fixing of a practicable minimum and at the same time retaining a distribution system which will insure specially skilled workers sufficient to provide an adequate labor supply and maintain the requisite "supplies of capital, management, and other agents of production."

SNYDER, CARL. *Business cycles and business measurements: Studies in quantitative economics.* New York, The Macmillan Co., 1927. xv, 326 pp., charts.

The purpose of this study, as set forth in the introduction, was to obtain broader and more detailed measures of trade, production, and business activity in the United States and their fluctuations throughout the last half century or more; to provide a standard for the measurement of business or trade by months from 1919 to date, by means of a new index of the total volume of trade derived from 56 separately computed series; and to make comparison of this with other new indexes of business derived from bank deposits, etc.

STUDENT CHRISTIAN MOVEMENT. *Modern industry: the Christian line of development,* by Malcolm Sparkes. London, 32 Russell Square, W. C. 1, 1927. 63 pp.

TAYLOR, CARL C. *Rural sociology: A study of rural problems.* New York, Harper & Bros., 1926. [v], 509 pp.

A brief review of this book is given on page 27 of this issue.

WALTHER, LÉON. *La technopsychologie du travail industriel.* Paris, Delachaux & Niestlé S. A., 1926. xi, 239 pp.

This is the first book in the French language giving a view of the field of industrial psychology as a whole. The special value of the volume, according to Dr. Ed. Claparede who writes its preface, is that the author has acquired a concrete knowledge of the problems he discusses, through his years of practical experience as a psychological expert in a large industrial establishment.

WEBB, SYDNEY AND BEATRICE. *English local government: English poor law history. Part I: The old poor law.* London, Longmans, Green & Co. (Ltd.), 1927. x, 447 pp.

This volume, one of the series relating to the development of English local government along various lines which Mr. and Mrs. Webb have been issuing since the early part of the present century, deals with the problem of poor relief only up to 1834, when the reform laws came into operation. The subject is given the detailed, accurate, and careful treatment which the public has come to expect from these authors, but it is explained that this volume is only preliminary to a second and more important one, dealing with the poor-law administration from 1834 down to 1927, which is to appear in due time. The serious situation due to the cost of poor relief as at present administered in England gives special timeliness to these studies.

